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ABSTRACT

This booklet presents a collection of lessons and support materials for teaching critical and creative thinking developed by participants in the 1989-90 and 1990-91 staff development project of the Bexley, Ohio City schools. Following a list of project participants, an overview of the Instructional Options Program, and a brief review of Calvin Taylor's Multiple Talent Approach (upon which the staff development project was based), the booklet presents five talent areas: creative, decision making, planning, forecasting, and communication. Each area contains: (1) definition; (2) process guide; (3) student/teacher roles; and (4) lessons. Each of the more than 20 one-page lesson plans per area contain: (1) talent area; (2) content area (reading, creative writing, science, art, social studies, health, etc.); (3) related content area (mathematics, problem solving, holidays, etc.); (4) objective; (5) process/procedure; and (6) which aspects in Bloom's Taxonomy of Educational Objectives in the Cognitive Domains the lesson addresses (knowledge, comprehension, application, analysis, synthesis, and evaluation). The last section, "Higher Level Thinking," contains information regarding Bloom's Taxonomy and other questioning techniques. An evaluation of the Instructional Options Program (Teacher Self-Evaluation, Evaluation of the Taylor Model, and Evaluation of Student Growth), concludes the booklet. (SR)

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Instructional Options Program

IOP

Bexley City School District

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INSTRUCTIONAL OPTIONS PROGRAM:

Lessons for Critical and Creative Thinking

This publication represents lessons and support material developed by participants of this 1989-90 and 1990-91 staff development project of the Bexley City Schools. Their enthusiastic efforts are appreciated.

Pamela Kallner
Project Facilitator

Dr. Anne Hyland
Director of Curriculum and Instruction

July 1991

CS508150

TABLE OF CONTENTS

	Page
Project Participants	3
Overview of the Instructional Options Program	4
Multiple Talent Approach . . . Calvin Taylor	6
Creative Talent Area Definition Process Guide Student/Teacher Roles Lessons	8
Decision Making Talent Area Definition Process Guide Student/Teacher Roles Lessons	35
Planning Talent Area Definition Process Guide Student/Teacher Roles Lessons	65
Forecasting Talent Area Definition Process Guide Student/Teacher Roles Lessons	92
Communication Talent Area Definition Process Guide Student/Teacher Roles Lessons	117
Higher Level Thinking Bloom's Taxonomy Questioning Techniques	140
Evaluation of the Instructional Options Program 1989-1990	152

INSTRUCTIONAL OPTIONS PROGRAM

Project Facilitator: Pamela Kallner, PACE Teacher

1989-90 Participants		1990-91 Participants	
Teacher/School	**Grade**	**Teacher/School**	**Grade**
Erin Bailey Montrose	2	Kay Addy Cassingham - Chapter I Reading Recovery	
Bev Finley Montrose	3	Cheryl Agranoff Maryland	3
Mindy Hall Maryland	1	Peg Antle Cassingahm	6
Margie Harris Montrose	2	Mary Catherine Byrne Montrose	K
Michael Kosec Maryland	5	Mary Ann Claydon Cassingham	1
Linda Kurtz Maryland	3	Cheri Gerhold Montrose	Phys. Ed.
Suzy Levine Cassingham	4	John Landis Cassingham	6
Molly McCarrick Montrose	1	Jean Lehman Maryland	6
Sharel Morrow Montrose	6	Becky Liefeld Montrose	Art
Trudy Pearson Maryland	4	Jan McDonald Cassingham	2
Nancy Prater Cassingham	2	Carolyn Retzlaff Cassingham	3
Erin Tully Montrose	Librarian	Viki Rogers Montrose	4
Sue Umpleby Montrose	Learning Center	Dina Williams Montrose	3
Kathy Vesling Cassingham	1		
Barbara Young Maryland	Art		

OVERVIEW OF THE INSTRUCTIONAL OPTIONS PROGRAM

The Instructional Options Program is a staff development project that concentrates on expanding a teacher's repertoire of instructional options. The project uses a model that develops attitudes and competencies which facilitate learning.

This staff development model is designed to include a unique emphasis on immediate and on-going feedback and review by the project facilitator. The purpose of the project is to identify instructional strategies that are effective for our particular district, define those characteristics, and develop plans to include them more consistently. Major emphasis is placed on identifying effective ways to deliver instruction with a focus on the quality of the student response.

The foundation of this project is built upon Calvin Taylor's Multiple Talent Approach model which emphasizes students' abilities in the areas of academic, creative thinking, decision making, planning, forecasting, and communication. Bloom's Taxonomy is also being used to assist in the integration of higher level thinking skills with the curriculum.

The participants review and use various instructional strategies which emphasize higher level thinking skills in the areas of critical thinking and creative thinking. Higher level thinking is a process that can be taught to students of all abilities. Differences exist in the quality of the response of the students. What the teacher says and does in the classroom affects students' abilities to think at higher levels. Through this project teachers are examining specific teacher behaviors that are believed to invite, maintain, and enhance students' thinking in the classroom.

This staff development project is guided by a project facilitator, who has time appropriated within the schedule, and is supervised by the director of curriculum and instruction. During the 1989-90 school year fifteen teachers representing grades 1-6 and special areas from all of the elementary buildings were involved in this project and contributed to planning and feedback as the project progressed. During the 1990-91 school year an additional group of thirteen teachers joined the program. Teachers from the initial group are currently involved in the second phase of the project, which focuses on enhancing the talent areas and further implementing the various instructional strategies.

Teachers meet individually with the project facilitator six times throughout the course of the school year. During these meetings they work on ways to implement the instructional strategies, plan

lessons and units, and establish individual goals to be attained through this project. The entire group meets after school throughout the school year for further inservice, feedback and sharing of ideas.

The collaborative nature of this project allows teachers to teach, revise, review, reflect and fully integrate these new strategies into their lessons.

Teachers are more aware of the processes involved in their teaching and are reaching areas of higher level thinking more consistently than in the past.

Significant changes have been observed in the students' responses. They are now learning to label their thinking. Students are applying the processes of the talent areas and functioning at higher levels of Bloom's Taxonomy in a deliberate and independent manner.

MULTIPLE TALENT APPROACH . . . CALVIN TAYLOR

Dr. Calvin W. Taylor, an early researcher in the area of creativity development, has organized thinking into six major talent areas. These areas are academic, creative, planning, communication, forecasting, and decision making. His studies show that each student is not always high or always low in all of these talent areas but may rank differently in different areas. He encourages teachers to move from stressing a narrow range of talents and abilities to striving to develop the many types of thinking that are possible within the mind. This approach is often referred to as the Multiple Talent Approach.

In the Multiple Talent Approach, it is possible for students to develop their abilities in each of the talent areas while growing in knowledge. The talents are life related skills that students need in the world outside of the classroom, thus the adult potential of many students is greatly enhanced.

The Instructional Options Program uses Taylor's Multiple Talent Approach as the foundation to further develop critical and creative thinking skills. Students are encouraged to become facilitators of learning rather than disseminators of knowledge. An emphasis is placed on students' ideas, questions and problems. A major focus is on the actual process of critical and creative thinking.

Following is a description of each of the talent areas. Included in each section are lessons developed and used by the staff involved in the Instructional Options Program for the 1989-90 school year. These lessons represent various levels and many major academic subjects. A planning matrix that was used to plan theme or unit approaches is included.

The lessons identify differentiated instruction based on the process of each of the talent areas. The activities intend to focus student learning on the process of critical and creative thinking. It is hoped that the compilation of these lessons will serve as examples and encourage continued modification of instruction.

Reference:

Maker, C. June. **Teaching Models in Education of the Gifted.** Austin, Texas: Pro-Ed, Inc., 1982.

CONTENT	Process ⟶ Academic	Creative Thinking	Communication	Forecasting	Decision Making	Planning	PRODUCTS
							WRITTEN Worksheet Story Editorial Poem Report Letter Journal/Log
							VISUAL Chart Illustration Bumper Sticker Poster Display Cartoon Mural Bulletin Board Model Diorama Video
							VERBAL Debate Speech Discussion Interview Cassette Tape
							KINESTHETIC Role Playing Game Demonstration Mime Dramatization Parade Dance
							MUSICAL Ballad Jingle Song Rap

Bloom's Taxomony - Kn (Knowledge) Co(Comprehension) Ap(Application) An(Analysis) Sy(Synthesis) Ev(Evaluation)

CREATIVE

CREATIVE TALENT

Definition

The ability to go beyond, to put together pieces of information or new ideas that seem unrelated and come up with new solutions or new ways of expression. This area includes:

- fluency
- flexibility
- originality
- elaboration

Teaching Process

1. Present a problem or something to consider
2. Allow think time, and list ideas
3. Provide setting for sharing, revising and refining ideas
4. Set aside a period of time to allow for incubation
5. Share additional ideas
6. Have students select their best solution
7. Have students select their most original solution
8. Carry out solution or decision

The Talented Creator (Eberle, 1974)

1. Produces a large number of ideas for a given situation
2. Has a tolerance of disorder
3. Often starts more than he/she can finish
4. His/her thinking and ideas may run contrary or opposite to others in class
5. Produces ideas or products that are novel and unique
6. Sometimes, his/her work contains great detail, tends to be a "production"
7. Considers contrasting ways of approaching a task or solving a problem and in producing a variety of ideas he/she is usually slow to effect closure
8. Adds his/her own ideas and notions to the work of others to produce a different, more complete and interesting idea or product
9. His/her thinking and expression is often spontaneous, unrestrained, unorthodox, and at times seemingly lacking impractical value
10. Curious, can be challenged, a risk-taker

Reference:

Maker, C. June. **Teaching Models in Education of the Gifted.** Austin, Texas: Pro-Ed, Inc., 1982.

CREATIVE TALENT

1. PRESENT A PROBLEM
2. THINK TIME
3. LIST MANY, VARIED, UNUSUAL IDEAS
4. REVISE, REFINE IDEAS
5. INCUBATION TIME
6. SHARE ADDITIONAL IDEAS
7. EVALUATE: FLUENCY, FLEXIBILITY, ORIGINALITY, ELABORATION

RULES FOR BRAINSTORMING

1. CRITICISM IS RULED OUT
2. FREE-WHEELING IS WELCOMED. SILLY IDEAS MAY TRIGGER PRACTICAL BREAKTHROUGHS
3. HITCH-HIKE OR PIGGY-BACK IDEAS
4. QUANTITY IS WANTED

CREATIVE CUES

1. **Make a long list** telling all of the good things about yourself.
2. How could we use old magazines? **Tell all the ways you can think of.** (fluency)
3. **Compose a novel** headline for a newspaper. (originality)
4. Have your drawing **tell all about it.** (elaboration)
5. **What are some different points of view?** (flexibility)

Additional Cues:

alter, rearrange, rephrase, substitute, change, restate, combine, reconstruct, adapt, magnify, originate, modify, rewrite, reverse, elaborate, and minify

CREATIVE TALENT

Student Role

Creator, problem solver

Sample Student Activities

- List things that come in pairs (fluency)
- How many different ways could you cross the Mississippi River? (flexibility)
- How would you rewrite "Little Red Riding Hood" so that the Big Bad Wolf was the hero? (elaboration)
- What new and different ways could school be taught in the year 2000? (originality)
- Invent a game
- Create new uses for familiar objects (Synectics)
- Create an object of art that expresses some emotion
- Create a useful object by recycling junk
- Invent a machine that is energy efficient

Teacher Role

Stimulator, questioner

Teacher Activities

Lead students through evaluation of fluency, flexibility, originality and elaboration.

Ask questions that lead students through the process of listing, refining, incubating, choosing and implementing.

Develop provocative or interesting situations that can be presented to students for creative activity.

Summary of Teacher and Student Roles and Activities in Calvin Taylor's Multiple Talent Approach

<u>Teaching Models</u> in Education of the Gifted (Maken, 1982)

TALENT AREA Creative

CONTENT AREA All Areas of Language Arts

RELATED CURRICULUM AREA(S)

OBJECTIVE: Students will write book reviews

PROCESS/PROCEDURE

A. Entire class comes to carpeted areas and discovers a stack of brand new paperback books. Teacher asks what is one way to determine whether or not a book "sounds" good. "Reading the back!" will hopefully be generated.

B. Teacher reads several book backs and asks children who they think wrote the material. The class then discusses the different professional children's book review organizations. (Horn Book, School Library Journal, Booklist, etc.)

C. Children are asked to imagine that they are book reviewers working for a newly-formed company (class, selected name, teacher name, room number or Library Journal). The class will create this publication.

D. One way to write reviews is to model them after professional ones. A list of common qualities of book reviews will be generated. (Children will have heard and read many before this list starts.)

E. Children are asked to give a "thumbs up" if they have a particular book in mind.

F. Students are asked to think of the many, varied, single words that describe why they would recommend a particular book. Think time is given.

G. Teacher writes all words on chart paper and this becomes part of the prewriting for the book review. Students can also refer to this chart for spelling and word choice.

H. Students are asked to share why they choose a particular word.

I. Next part of this lesson happens over a period of days. Students are ready to write. (Draft, peer-share, revise, group share, revise, final draft.)

BLOOM LEVELS: - Analysis of professional book reviews
- Synthesis - creating own review
- Evaluation - what makes an interesting review?

TALENT AREA Creative

CONTENT AREA Literature

RELATED CURRICULUM AREA(S) Art

OBJECTIVE: The students will create a place for Mary's lamb to stay while she is at school.

PROCESS/PROCEDURE

A. Mary's lamb needs a safe and desirable place to stay while she is at school.

B. Children are given time to sketch possibilities.

C. Sketches are shared with a small group. The group brainstorms more possibilities.

D. The children construct their houses for the lamb.

E. They share their final products and evaluate them against criteria set by the class.

BLOOM LEVELS:

- Application
- Analysis
- Synthesis
- Evaluation

TALENT AREA Creative

CONTENT AREA Language Arts - Reading

RELATED CURRICULUM AREA(S)

OBJECTIVE: To look at a grouping in new and unusual ways.

PROCESS/PROCEDURE

A. The children will be given the opportunity to read many Caldecott books that are displayed. Having familiarized themselves with the books they are to rearrange the books.

B. They are to think of as many different ways that the books may be grouped. (Consideration will be given that all may not fit into one category.)

C. For example:

Books may be grouped that are about animals
Books may be grouped that are about snow or night.

D. Later a graph may be displayed to show the many/unusual groupings the children found in the Caldecott books.

BLOOM LEVELS:

- Analysis

TALENT AREA Creative

CONTENT AREA Language Arts - Reading

RELATED CURRICULUM AREA(S) _____

OBJECTIVE: To give students an opportunity to create an alternate ending for a story.

PROCESS/PROCEDURE

A. Present the problem - the editor of your publishing company has just told you that you must change the ending of your book **The Witch of Blackbird Pond.**

B. Provide think time.

C. List many, varied, unusual possible endings (piggy-backing, no criticism, quantity desired).

D. Revise and refine ideas - clarify any answers that need clarification.

E. Evaluate for fluency, flexibility, orignality and elaboration.

BLOOM LEVELS:

- Knowledge - background of the story
- Analysis - listing ideas
- Synthesis - understanding characters to create plausible outcomes
- Evaluation

TALENT AREA Creative

CONTENT AREA Reading (Circus Unit)

RELATED CURRICULUM AREA(S)

OBJECTIVE: To initiate the unit, the students will brainstorm many and varied words associated with the circus. The students will gain experience in the fluency, flexibility, originality and elaboration aspects of the talent area.

PROCESS/PROCEDURE

A. Students will create a list of words. Variety will be encouraged. All ideas will be accepted. Think time will be allowed to elapse for fluency.

B. Students will add any additional items to the list. They will put the words into categories (animals, people, things, places) and also according to some phonetic similiarities (short vowels, blends, etc.). They will look for interesting and unique ideas for flexibility. Add details (originality). Encourage piggy-backing for more elaboration.

C. Select/rearrange the words for playing bingo to enhance word recognition.

D. Choose words and combine them to create a circus story or a big book. Originate a crossword puzzle with this same list of words.

BLOOM LEVELS:

- Knowledge: recalling, selecting, sorting
- Comprehension: explaining, interpreting
- Application: employing, putting to use
- Analysis: taking apart, separating
- Synthesis: rearranging, combining
- Evaluation: selecting, choosing

TALENT AREA Creative

CONTENT AREA Reading

RELATED CURRICULUM AREA(S)

OBJECTIVE: The student will learn to self-correct errors in reading.

PROCESS/PROCEDURE

A. **Present the problem:** On a chart present transcript of a child's reading. Explain that some parts of the reading did not make sense. Have the children identify the errors, by underlining the words that don't make sense.

B. List many, varied possibilities for words that might fit into the space.

C. Read the entire passage, revise ideas deciding which would make most sense.

D. **Evaluate:**

Which kind of words were most difficult to think of?

Why did some word choices need to be eliminated?

How does thinking of a list of possibilities quickly help you?

BLOOM LEVELS

- Synthesis
- Analysis

TALENT AREA Creative

CONTENT AREA Language Arts

RELATED CURRICULUM AREA(S) Social Studies, Reading

OBJECTIVE: To write a fictional story using authentic information about a place or a country that was studied in the world cultures curriculum.

PROCESS/PROCEDURE

A. Background information - units of Social Studies where the cultural, economic and historical aspects of several countries were studied, classified, and compared.

B. Students were given assignments to collect data about any of the areas previously studied (example: Japan, China, Europe, etc.) and using authentic places, circumstances, events, write a fictional story.

C. Criteria for writing fiction was reviewed - setting and good description, characters appropriate for the time and place, story elements based on facts, problems appropriate to area at the time, solutions logical and sequential.

D. Using partner plan (collaboration is individual choice) or working alone the student webbed the ideas and facts and built story, editing and rewriting as needed.

E. Stories shared by reading aloud.

BLOOM LEVELS:

- Knowledge
- Comprehension
- Application
- Synthesis

TALENT AREA Creative

CONTENT AREA Tall Tales

RELATED CURRICULUM AREA(S) Reading-Ohio History

Black History

OBJECTIVE: After reviewing characters of tall tale legends Annie Oakley, Paul Bunyan, and John Henry, students create their own "tall tale."

PROCESS/PROCEDURE

A. Students read and see filmstrips and listen to tall tales read by teacher. Students discuss elements of tall tales (exaggeration, a grain of truth, folk hero).

B. Students create a tall tale after discussion of elements. Students work in small groups cooperatively and use think time - to create their characters. All ideas are accepted - fluency.

C. Characters will be original. Students add events and situations to tall tale exaggerations. They use flexibility and elaboration.

D. Students will write an adventure that will be read to the class and illustrated. Students will make "tall tale" into a book.

BLOOM LEVELS:

- Analysis
- Synthesis

TALENT AREA Creative - Fluency

CONTENT AREA Black History Unit

RELATED CURRICULUM AREA(S) Language Arts/Social Studies

OBJECTIVE: To create a web about our unit by brainstorming as many ideas as possible

PROCESS/PROCEDURE

A. Prior to this activity, on a big piece of mural paper, write "Black History" (or other unit name) in the center and hang it up. (Choose paper and magic marker color to go with unit.)

B. About two weeks into your (Black History) unit, tell the students to think of anything and everything that they can, that relates to the unit. Talk about **fluency** and **piggy-backing**.

C. **Think Time!**

D. Kids generate ideas. The teacher writes them down. If they get "stuck," the teacher might say: "Think about folktales," etc.

E. Come back to the web on another day and add to it.

BLOOM LEVELS:

- Knowledge
- Comprehension
- Application
- Analysis

TALENT AREA Creative

CONTENT AREA Grandperson's Day

RELATED CURRICULUM AREA(S) Writing, Language Arts

OBJECTIVE: Make booklet for Grandperson to record experiences of their school days vs. what child records it's like today -- to brainstorm and gather ideas for writing in Grandperson Day booklet.

PROCESS/PROCEDURE

A. **Fluency** - Large group brainstorm--gather ideas . . . how many ideas do we have?

B. **Flexibility** - Fit our ideas into related categories

C. **Originality** - What ideas do we have that others might not?

D. **Elaboration** - Which ideas are detailed? Which need to be more specific?

BLOOM LEVELS:

We used **knowledge** and **comprehension** from what we've learned about early days in school vs. what our experience today is like

Application - we listed all for Grandperson

Analysis - When Grandperson came for visit -- they'd discuss and compare

TALENT AREA Creative

CONTENT AREA Writing

RELATED CURRICULUM AREA(S) _____

OBJECTIVE: For children to have a rich vocabulary base for their poetry.

PROCESS/PROCEDURE

A. Read Aloud - **Shadow**, Marcia Brown.

B. What words did Marcia Brown use to describe shadows? What images were painted through her language?

C. Brainstorm class list of words that desscribe shadows. (fluency)

D. Group words into categories. (flexibility)

E. Begin drafting.

BLOOM LEVELS:

- Knowledge
- Comprehension
- Synthesis
- Evaluation

TALENT AREA Creative

CONTENT AREA Social Studies

RELATED CURRICULUM AREA(S) _____

OBJECTIVE: Children will list similarities and differences.

PROCESS/PROCEDURE

A. We read about pioneers in **My Ohio**. Each child read fiction and non-fiction books about Pioneer Life. I read **Sarah Plain and Tall** and **The Courage of Sarah Noble.**

B. We made two lists of similarities and differences. We talked about what these words mean and the idea of comparing.

C. One list was all of the similarities and differences between our houses and pioneer cabins. (fluency)

D. The other list was of similarities and differences between our school and the one-room schoolhouse. (fluency)

BLOOM LEVELS:

- Knowledge
- Comprehension
- Analysis
- Synthesis

TALENT AREA Creative

CONTENT AREA Social Studies

RELATED CURRICULUM AREA(S)

OBJECTIVE: Students will develop five laws with corresponding reasons for each.

PROCESS/PROCEDURE

A. Students will read and discuss several laws developed by Hammurabi.

B. Students will compare and contrast some of Hammurabi's laws with some of our laws.

C. Students will develop a booklet of five laws with reasons for each law. Students will also design the cover and entitle their booklet of laws.

BLOOM LEVELS:

- Application
- Analysis
- Synthesis
- Evaluation

TALENT AREA Creative

CONTENT AREA Social Studies-Study of Bexley

RELATED CURRICULUM AREA(S)

OBJECTIVE: Students will use their creative talent to create something new and original.

PROCESS/PROCEDURE

A. Problem: Bexley does not have a fire department. Use your creative talents to design a fire house, fire trucks and fire uniforms.

B. List many, varied unusual ideas - think of new designs. Tell how your creations will be used and how they work.

C. Draw pictures of your creations.

D. Share with classmates - discuss originality - compile ideas and make a class composite.

TALENT AREA Creative Talent

CONTENT AREA Social Studies: Indian Unit

RELATED CURRICULUM AREA(S)

OBJECTIVE: After hearing an Indian folk tale of "their" tribe, the students will brainstorm many, varied ways to present this tale to the rest of the class. The students will gain experience in the fluency, flexibility, originality and elaboration aspects of the Creative Talent.

PROCESS/PROCEDURE

A. **Motivation:** After background information the class has been divided into Indian tribes representing various sections of the United States. They have recreated their tribe in some way. Finally they go to the library to receive the gift of a folk tale unique to their tribe from the great Shaman (Librarian). The Shaman tells the tale with reverence and drama.

B. **Creative Activity:** The students think of as many ways as possible to present this story gift to the rest of the class: all, part, symbols, pantomine, etc.

   List ideas. Encourage variety. All ideas accepted. No critique. **(fluency)** Allow time to elapse. **(think time.)**

C. Students add any additional ideas to the list. Put into categories of related aspects. **(flexibility)** Look for unique, interesting ideas. **(originality)** Add details. **(elaboration)** Encourage piggy backing, hitch hiking.

D. **Extension:** Have students select and carry out one of their ideas. Will go into Planning Talent and Communication Talent.

BLOOM LEVELS:

- Comprehension (translate, explain, interepret)
- Application (illustrate, teach, show)
- Analysis (abstract, dissect, order, categorize)
- Synthesis (design, invent, combine, compose, create, imagine, produce)
- Evaluation (select, choose, discuss, rate, dispute)

TALENT AREA Creative

CONTENT AREA Ohio History (Indians)

RELATED CURRICULUM AREA(S)

OBJECTIVE: To help students relate to the lives of early Ohio Indians and to develop skills in creative thinking.

PROCESS/PROCEDURE

A. Present the problem: Students are to create a menu for a restaurant that can serve only food available to the early Ohio Indians and to determine a pricing system that includes only objects these Indians possessed.

B. Students can brainstorm a list of every food that could have been available to the early Ohio Indians.

C. Students, working in pairs, can list ideas for names for their restaurants, determine possible menu items for various categories such as entrees, beverages, desserts, appetizers, etc., and list various forms of possible payment (wampum, pelts, etc.).

D. Students may revise their ideas, develop new ideas, or eliminate ideas they do not like. The teacher may want to help the students evaluate their ideas.

   Then the students using paper or cardboard can actually put their ideas into a "menu." Students can role-play ordering from one another's menus.

BLOOM LEVELS:

- Application
- Analysis
- Synthesis
- Evaluation

TALENT AREA Creative

CONTENT AREA Science (Night and Day)

RELATED CURRICULUM AREA(S) All Areas

OBJECTIVE: The children will brainstorm many varied and unusual ideas related to the terms Day and Night as an introduction to this science unit.

PROCESS/PROCEDURE

A. The children were given time to think of as many words related to Day and Night as possible. **Fluency** was a stated goal of this activity.

B. A class list of Day and Night words was constructed.

C. I then put all the words given on index cards, and the following morning I asked the children to physically move each word, and place it into one of four categories that had been developed. The children were given time to think, and then they proceeded with the activity.

D. Decisions had to be made along the way by children about what to do with words that fit into more than one category.

E. The original list was then left up throughout our unit to aid in written expression.

BLOOM LEVELS:

- Analysis
- Synthesis (combining individual words to form a category
- Evaluation of categories, and words placed in certain categories

TALENT AREA Creative

CONTENT AREA Science (Rocks)

RELATED CURRICULUM AREA(S) Literature

OBJECTIVE: To provide an opportunity to create rock (animal) creatures from rocks and then to write a story that includes the rock (emphasizing a description of the rock's actions, feelings and appearances).

PROCESS/PROCEDURE

A. List different kinds of creatures (animals) that we might think about making from rocks.

B. "Play" with our rocks and share ideas with our classmates. Students give each other ideas as to how they can use their rocks to create creatures. (Piggy-backing)

C. Students select rocks and then glue them together.

D. Students write a story that includes their rock creature as one of the characters. Emphasis is on describing how the creature acts, looks and feels.

BLOOM LEVELS:

- Synthesis

TALENT AREA Creative - Fluency/Flexibility

CONTENT AREA Science-Mammals

RELATED CURRICULUM AREA(S)

OBJECTIVE: Introduction to unit - (student generated)

PROCESS/PROCEDURE

A. "Let's find out how many animals you can name in 10 minutes." Review guidelines of brainstorming. Individuals generate own lists in journals. Count. **(fluency)**

B. Invite students to share two examples with class. "Can you piggy-back on any of the shared ideas and "generate" come up with even more animals? Count. **(fluency)**

C. "How could you divide **your** list into groups?" (Teacher record on board) Example: (from students) habitat, food, wild/domestic, color, covering, number of legs, kind. **(flexibility)**

D. Focus-kind of animals "Identify groups/kinds of animals on individual list." Count. "Which group do **you have** the most examples of animals?" **(fluency)**

BLOOM LEVELS:

- Knowledge: list, identify
- Comprehension
- Analysis - categorize, separate into groups

TALENT AREA Creative

CONTENT AREA Health

RELATED CURRICULUM AREA(S) Nutrition/Economics/Advertising

OBJECTIVE: Create an advertisement for a nutritious food product that uses one of the advertising appeals studied in class.

PROCESS/PROCEDURE

A. After studying nutrients, their purpose and where they are found, students will develop a new nutritious food or snack.

B. Brainstorm possible new nutritious snacks.

C. Once the snack is developed each student will advertise their product by using at least one of the appeals below:

1. slogan
2. health
3. unusual eye
4. animated characters
5. recipes
6. special offer
7. appeal to children

D. The ad must include:

1. name of product
2. kinds of nutrients found in product
3. list of ingredients
4. number of servings in each package
5. weight of package
6. illustration

BLOOM LEVELS:

- Knowledge
- Comprehension
- Application
- Analysis
- Synthesis

TALENT AREA Creative

CONTENT AREA Health

RELATED CURRICULUM AREA(S) Circulatory System

OBJECTIVE: To have students think about and record ways the individuals in their school might work toward obtaining optimal functioning of their circulatory systems.

PROCESS/PROCEDURE

A. Present the following problem to students: "If time and money were no problem, how would you change Montrose to improve cardiovascular fitness of students and teachers?"

B. Provide individual students time to generate possible solutions to the above problem.

C. Have students work in small groups to make a list of each individual's solutions and then brainstorm varied and unusual ideas.

D. Have the students arrange their list from most possible option to the most unusual option.

E. Have each group share the most possible and most unusual option with the class.

BLOOM LEVELS:

- Application
- Analysis
- Synthesis

TALENT AREA Creative

CONTENT AREA Fantasy Hands

RELATED CURRICULUM AREA(S) Art

OBJECTIVE: After studying the structure of the human hand by working on observational drawings of the students' own hands in a variety of poses as well as examining how a number of other artists have depicted the hand and/or fantasy in their art work, the students will create a Fantasy Hand drawing.

PROCESS/PROCEDURE:

A. Students work on observational studies of their hand(s).

B. Students are introduced to a number of works of art which depict or somehow include the hand.

C. Students are introduced to surrealistic and/or fantasy in art.

D. As a group, the students will generate a list of possible ideas for their Fantasy Hand drawings. They will be familiar with F20E.

E. Students will individually create four sketches for their own Fantasy Hand.

F. As a group, students will share these ideas, identifying what they have determined is their best idea or their most original.

G. Students will now produce their Fantasy Hand drawing. They will write an accompanying explanation or interpretation of their work.

BLOOM LEVELS:

- Synthesis: create, generate, produce
- Evaluation: determine, explain, interpret

TALENT AREA Creative

CONTENT AREA Art

RELATED CURRICULUM AREA(S) Portraits

OBJECTIVE: The students will create a self-portrait. This portrait will be done by first tracing the edge line of a projected shadow produced by a light. This will represent a silhouette of the student's head on white paper. The inside will be filled by drawing objects, scenes, and/or thoughts which represent aspects of the student.

PROCESS/PROCEDURE

A. After explaining the project to the class, the teacher will have the class develop a list of types of things which could be included on a list of things to put inside the portrait, (things you like, dislike, school, home, vacation, TV, games, sports, dolls, etc.).

B. The teacher will use the light from an overhead projector to produce a shadow of each student and trace the line on white paper.

C. While the students are waiting to have their portraits drawn they will work at their seats to develop on paper a list of things to include in their head. This list should be as long as possible and not be concerned about whether or not the student can draw the object. We will be looking for fluency and elaboration.

D. After the list is complete we will discuss how to best represent some of these things. There may be more than one method to show you like to read in your spare time. We will discuss some of these, as well as discuss what we are doing, and how this is often the way artists go about their work.

E. Students will make some rough sketches of what they want to include in their self-portraits. These will be developed and refined alone and with the teacher until each is ready to begin on the final product. The students will need to choose a medium they wish to use and justify why it will be the best choice.

F. When project is complete the class will discuss the process to see if they understand what they have done. They will discuss how this process has been used in other aspects of their life now and in the future.

TALENT AREA Creative

CONTENT AREA Elementary Physical Education

RELATED CURRICULUM AREA(S)

OBJECTIVE: Make up a game for classmates that uses playground balls.

PROCESS/PROCEDURE

A. Prior to this activity we will have learned simple ball skills such as throw, catch, kick, etc.

B. We will brainstorm possibilities of what can be done with playground balls. (fluency, flexibility)

C. Each group of students is given class time to invent a game.

BLOOM LEVELS:

- Application
- Analysis
- Synthesis

DECISION MAKING

DECISION-MAKING TALENT

Definition

The ability to evaluate data carefully before making judgments. This area involves experimental evaluation, logical evaluation, and judgment.

Experimental Evaluation - involves considering possible solutions from a variety of points of view, examine all possible conditions that would limit or enhance success of solution, and looking at the relationship of personal needs to the decision to be made.

Logical Evaluation - the possible solutions are examined according to their value and each solution (decision) is considered in relation to established logical criteria with ratings assigned.

Judgment - the actual decision-making and defending the decision.

Teaching Process

1. Consider thoroughly all aspects of the situation - discuss in groups.
2. Examine each possible decision - give arguments for and against.
3. Assign weight or rating to each argument.
4. Reach a conclusion by considering arguments and their ratings.
5. Defend or support the decision made as the best based on their evaluation and logic.

The Talented Decision-Maker: (Eberle, 1974)

1. Remains emotionallly apart from the problem
2. Weighs consequences, withholds early judgment
3. Considers more than one course of action
4. Poses many influential questions and seeks out the answers
5. Engages in experimental evaluation: asks, "What if?"
6. Has data to support the decision
7. Applies evaluative criteria in making choices
8. Is willing, not afraid, to make a decision
9. Willingly defends the decision
10. Sticks with the decision and acts accordingly

Reference:

Maker, C. June. **Teaching Models in Education of the Gifted.** Austin, Texas: Pro-Ed, Inc., 1982.

DECISION-MAKING TALENT

1. DEFINE THE PROBLEM
2. IDENTIFY MANY, VARIED, UNUSUAL SOLUTIONS
3. SET CRITERIA
4. MAKE A JUDGMENT
5. SUPPORT YOUR DECISION

DECISION-MAKING CUES

Examine all possibilities

Determine the best way . . .

Decide how . . . support your decision . . .

Appraise the situation

Select the best . . . why is it the best

What questions will you ask as you **examine alternatives?**

Make a choice

You be the **judge, rule on the situation. Why?**

Additional Cues: determine, defend, conclude, discriminate, detect, disclose, evaluate, reveal and conclude

DECISION-MAKING TALENT

Student Role

Decision maker

Sample Student Activities

1. Decide what will happen at the end of an unfinished story
2. Decide what to take on a two-week trip when you are allowed only one suitcase
3. Decide what your ideal person would be like
4. Decide where to live if given unlimited choices
5. Decide what to do about an unjust law
6. Decide on a list of people to be included in a peace conference

Teacher Role

Stimulator, questioner

Teacher Activities

1. Develop situations or pose situations for students to make decisions about.

2. Pose questions that encourage (or require) students to consider a variety of alternatives, relate their decisions to their goals, consider the effects or results of their decisions, and develop both their logic and their intuition to enhance their effectiveness.

3. Assist students in developing criteria.

4. Assist students in defending their decisions.

Summary of Teacher and Student Roles and Activities in Calvin Taylor's Multiple Talent Approach - **Teaching Models in Education of the Gifted** (Maker, 1982)

TALENT AREA Decision-Making

CONTENT AREA Reading

RELATED CURRICULUM AREA(S) Social Studies, Writing

OBJECTIVE: Students will create a visual to display/share knowledge gained from an in-depth study of a famous black American.

PROCESS/PROCEDURE

A. (Background information) Previous lessons include reading a book on a famous black American silently, listing many, varied, single words that describe their person's struggles and accomplishments. Students then read their book and shared their lists with second graders.

B. In a class meeting, students are presented with task of creating a visual of their research to display in the room.

C. Children are shown the space for the display.

D. Students identify the many, varied, and unusual ways to show the importance and significance of their famous black American. All ideas are written down. Children give verbal supports for their choices.

E. Students then decide/vote on criteria for visual. (size, medium, written representation, artistic representation)

BLOOM LEVELS

Analysis - listing ideas
Synthesis - creating the visual
Evaluation - deciding set criteria and giving support for choices

TALENT AREA Decision-Making

CONTENT AREA Read book "Rent a Third Grader"

RELATED CURRICULUM AREA(S) Reading, Communication, Oral Language Discussion and right vs. wrong

OBJECTIVE: To read a book "Rent a Third Grader" by B. B. Hiller daily to class and discuss important decisions and how they effect your entire life.

PROCESS/PROCEDURE

A. Discuss important decisions one makes in life and that we'll read a book, "Rent a Third Grader" where a character is forced to make a very important decision.

B. Read the book daily. Stop where character decides "Should she buy the Barbie outfit with the leftover money or should she go back and tell the lady she had given her a ten dollar bill instead of a one dollar bill."

C. Relate possibilities to themselves and the chances of success depending on which decision is reached.

D. Read the rest of the story and defend the decision the author makes. Class gives arguments for and against and takes a vote.

BLOOM LEVELS:

Collection of information as story is read aloud to set up decision - **knowledge** and **comprehension**

Discuss pro and con of reaching decision - **application**. List these and relate to their own experiences - **analysis** and **synthesis**

Evaluation - when the rest of the story is read and author reveals character's choice. Do they agree or disagree with author?

TALENT AREA Decision-Making

CONTENT AREA Read Aloud

RELATED CURRICULUM AREA(S) _____

OBJECTIVE: For children to practice making decisions with preset criteria.

PROCESS/PROCEDURE:

A. Read aloud--**Three Days on a River in a Red Canoe.**

B. Brainstorm a list of places the class could go on a trip.

C. Using an evaluation chart, set up criteria.

D. Fill out chart according to criteria. Make a judgment about where we would go based on scoring from the criteria chart.

BLOOM LEVELS:

Comprehension
Application
Analysis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Fairy Tales

RELATED CURRICULUM AREA(S) Language Arts/Health

(Relationships)

OBJECTIVE: To give students experience in establishing and using criteria for decision-making.

PROCESS/PROCEDURE

A. Define the problem: Students are to work together to choose a fairy tale character who would best fit as a student in their class.

B. Students will brainstorm and create a list of every quality that they can think of which they would like a new student in their class to have.

C. Each student will vote for the three qualities which would be of the greatest priority to him/her. Those qualities with the most votes will be included in a chart to show the criteria on which each fairy tale character will be evaluated.

D. Students will show their evaluations on the chart in relation to each of the criteria previously determined. (The list of characters can be done by student nominations or can include all of the characters read about in class.)

E. Students can orally explain or write their reasons for making their number one pick for each quality.

F. The teacher can tally the results to determine the decision of the class as a whole. (A further extension would be to have students write a story about the day when the selected fairy tale character joins the class. In this way students can "support" the class decision.

BLOOM LEVELS

Application
Analysis
Synthesis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Reading

RELATED CURRICULUM AREA(S) _____

OBJECTIVE: The student will learn to self-correct errors in reading that interfere with the meaning of the text.

PROCESS/PROCEDURE

A. Examine a chart with a transcript of a child's reading. Give each child a copy of the passage in its original form. Have the children identify the errors in the transcript.

B. Have each child make a list of the miscues they think most interfered with the meaning of the text. Record all possibilities and listen to arguments for and against.

C. Put possibilities on a chart

word	_____	changes meaning
	_____	
	_____	doesn't change meaning
	_____	
	_____	changes meaning a little
	_____	
	_____	

D. Have the children change the miscues that they determined most interfered with the meaning of the text, leaving in the other miscues.

Did we make the best decision?
Do we still have a passage that means the same as our original?

BLOOM LEVELS

Evaluation

TALENT AREA Decision-Making

CONTENT AREA Reading (Circus Unit)

RELATED CURRICULUM AREA(S) _____

OBJECTIVE: To give students the opportunity to appraise a situation, examine alternatives, and make a choice while using the decision-making talent.

PROCESS/PROCEDURE:

A. After reading **"The Nock Family Circus,"** the students will appraise the situation. Next they will work to determine what life for a child in the circus would be like.

B. Students will brainstorm to identify many and varied aspects of that life.

C. The students will evaluate this life by charting advantages and disadvantages. They might use the creative talent to compare life in the circus with their own lives.

D. From the information given they will conclude which type of life they would like best. They will support their decision by writing an entry in a diary about a day in the life of . .

BLOOM LEVLS

- Knowledge: recalling, selecting, sorting
- Comprehension: translating
- Application: applying, employing
- Synthesis: rearranging
- Evaluation: choosing

TALENT AREA Decision-Making

CONTENT AREA Literature

RELATED CURRICULUM AREA(S) Science (Environment)

OBJECTIVE: How might a modern day Noah save the animals?

PROCESS/PROCEDURE:

A. Read two versions of Noah's Ark--Gail Haley's and Peter Spiers. Present the problem as to how a modern-day Noah might save the animals.

B. List many, varied containers we might have on land, water or air (fluencey).

C. Offer suggestions for each environment.

D. Tell why we think each suggestions would make a good environment for the animals.

E. Vote on the suggestions (A rocket ship won the majority of the vote.)

F. Choose to work on either the rocket or the animals.

G. List all of the animals and categorize them as to their environment. In this way you make sure all kinds of environments are included on the rocket (land, sea, air).

H. Create a paper rocket with paper animals for our door.

I. Decide where the animals should be placed and how to divide the ship, what background to add for a correct environment.

J. Tell why we placed certain animals in certain places on the ship.

TALENT AREA Decision-Making

CONTENT AREA Social Studies

RELATED CURRICULUM AREA(S) _____

OBJECTIVE: Students will identify, define and summarize a world issue. Based on their understanding and values they will state what they think the outcome will be.

PROCESS/PROCEDURE:

A. Teacher will discuss the objective with the student.

B. Students will read the Junior Scholastic magazine which presents many world issues. Students will read all the issues and select one.

C. Students will define the problem and individually consider several solutions. Based on their values and understanding of the issues (criteria); students will decide and predict what they think the outcome of the issue will be.

BLOOM LEVELS:

Application
Analysis
Synthesis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Social Studies

RELATED CURRICULUM AREA(S) Math

OBJECTIVE: The students will decide where their new gerbils will be located in the classroom.

PROCESS/PROCEDURE

A. Everyone would like to have the gerbil cage on his table. How can it be shared equally?

B. The children brainstorm many, varied, unusual solutions. The teacher records the responses on the board or chart paper.

C. The class discusses criteria for the best location.

D. A decision is made after totaling the figures from the criteria chart.

E. The class abides by the decision.

BLOOM LEVELS

Application
Analysis

TALENT AREA Decision-Making

CONTENT AREA Social Studies - Indian Unit

Second Grade

RELATED CURRICULUM AREA(S) Families; Holidays; Graphing;

Literature; American Indian

Folklore; Predicting

OBJECTIVE: Integrating their own values and experience with their acquired knowledge of the environment of the Indian tribe, the students will apply the steps of decision-making to judge what should be done about a disobedient Indian boy.

PROCESS/PROCEDURE

A. **Motivation:** In the book, The Picture-Skin Story, by Alex W. Bealer; Holiday House, an Indian boy wants to hunt buffalo very badly. He leaves the horses he is tending and shoots small arrows at a huge buffalo. The buffalo turns and charges the boy. The boy's father saves him; but he has directly disobeyed, endangered his life and the welfare of the tribe. "An individual who goes hunting by himself during the season for tribal hunting might scare away the buffalo, and as a result many of his fellow villagers would go hungry." On the last page the story reads, "I hoped that my father would forget that I had disobeyed him. But later I found he had not forgotten."

B. **Decision-making activity:** Children decide what they would do if they were the father.

They consider all aspects of the situation.
They are cautioned to:
Consider more than one course of action
Remain emotionally apart from the problem
Withhold early judgment
Ask "what if?"
They decide what father might want to accomplish.
Examine each possible decision--giving arguments pro and con
Evaluate. Use a grid (see attached)
Reach a conclusion. Defend or support it.

D. **Extension:** The story continues, "That night after the hunt my father called all the people of the village to our teepee. he told what had happened. (Repeat above for tribe's decision.)

BLOOM LEVELS

- Evaluation (judge, assist, evaluate, decide)
- Syntheses (infer, hypothesize, imagine, predict)
- Analysis (chart, deduce, categorize)
- Application
- Knowledge (recall, list)

TALENT AREA Decision-Making

CONTENT AREA Pioneer Day

RELATED CURRICULUM AREA(S) Ohio History

OBJECTIVE: To give students experience in establishing and using criteria for decision-making.

PROCESS/PROCEDURE:

A. Define problem. Students are to choose pioneer games that would fit a pioneer school day setting and be appropriate for weather--indoor and outdoor--and be safe in a school setting.

B. Students will brainstorm and create a list of games they would like to play. Criteria will be listed on a chart for evaluation of games.

C. Students will orally explain their reasons for making their choice of one indoor game, and one outdoor game.

D. Teacher can tally results to determine four games to be played inside and four games to be played outside safely and in keeping with pioneer theme.

BLOOM LEVELS:

Application
Analysis
Synthesis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Social Studies

RELATED CURRICULUM AREA(S) Readin, research

OBJECTIVE: To process the advantages and disadvantages of living in Japan today.

PROCESS/PROCEDURE:

A. Background - children were given extensive sources of information on modern Japan through current news and educational videos.

B. A comparative study was conducted in listing how Japan and United States of America are same, how different. These lists were shared and charted by class from individual notes.

C. In groups (3-5) the students were asked to make a chart showing advantages and disadvantages that we would encounter if we lived in Japan today.

D. Groups shared their findings and rated advantages versus disadvantages as a summary activity.

BLOOM LEVELS:

- Synthesis
- Analysis
- Evaluation

TALENT AREA Decision-Making

CONTENT AREA Peter Spier/Flags

RELATED CURRICULUM AREA(S) Social Studies/Language Arts

Problem Solving

OBJECTIVE: Using the decision-making model, the students will choose a class flag.

PROCESS/PROCEDURE

A. Prior to doing this activity, you must do the communication activity (that I have designed) on creating classroom flags.

B. Problem: Choosing one flag to represent the class.

C. Display flags created in the communication activity. (Use all/some of them--this is up to the class). Give each flag a letter (A, B, C . . .).

D. Criteria: This is decided upon by the students and is based on what's important in our classroom and what we know about flags.

Example: Which one "best" represents the teacher?
Which one "best" represents the students?
Which one is the simplest?

(You'll probably want 3-5 criteria)

E. Set up the decision-making model chart on the chalkboard, listing flags (by letter) vertically and criteria horizontally. As a class, rate each flag within each criteria with a number.

Example: If there are five flags, five is high and one is low. Lots of discussion should occur during this!

F. Add up total poins for each flag. Flag with the most points is chosen as the class flag.

G. Make the decided upon flag into a big flag and hang it outside or inside the classroom.

BLOOM LEVELS

Application
Knowledge (recall, list)
Evaluation (judge, assist, evaluate, decide)
Syntheses (infer, hypothesize, imagine, predict)
Analysis (chart, deduce, categorize)

TALENT AREA Decision-Making

CONTENT AREA Science - Plants

RELATED CURRICULUM AREA(S)

OBJECTIVE: Choose plants/flowers to plant and care for outside classroom window.

PROCESS/PROCEDURE

A. Review decision-making procedure - define problem: which plants/flowers should we plant outside our window?

B. Identify many, varied, unusual solutions (brainstorm flower, plant ideas).

C. Could we **really** plant all of the ideas? (probably not.) What criteria should we develop to help us decide what to choose? (possible responses: amount of care necessary, price, climate, aesthetic value, which season it blooms, area available to use. . . etc.)

D. Assign rankings according to criteria and evaluate each plant accordingly.

E. Make a decision with results of ranking.

(Lends itself to planning lesson - arrange garden area, purchasing plants, schedule for who will maintain)

BLOOM LEVELS

Evaluation - judgment, give reason

TALENT AREA Decision-Making

CONTENT AREA Mammals Studies

RELATED CURRICULUM AREA(S) Science

OBJECTIVE: Students will use decision-making talent to select a mammal to research.

PROCESS/PROCEDURE:

A. Define problem. Student must choose an animal to research and write about in a report.

B. Identify many, varied animals. Brainstorm and list on the board all of the animals they can name.

C. Set criteria.

1. From the list identify which ones are mammals.
2. Mammal must be at the Columbus Zoo.
3. Student wants to learn more about that mammal.

D. Make judgment. Choose the mammal that interest you most that fits all criteria.

BLOOM LEVELS:

Knowledge
Analysis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Science (Living things)

RELATED CURRICULUM AREA(S) Math (Addition and Subtraction)
Could be used whenever a class is planning to purchase something

OBJECTIVE: To evaluate the four types of goldfish and select one for classroom purchase

PROCESS/PROCEDURE

A. During a science unit on fish, the four main types of goldfish were introduced through books and projects. We decided to purchase one goldfish, and we had to decide which fish to buy.

B. We brainstormed a list of factors we should consider while making this decision.

C. From the list generated in Step B, we chose four factors we felt to be most important, and we developed a grid.

Each fish received a +1, -1 or sometimes a blank in each box on the grid. We added scores, and the fish with the highest total was selected.

I asked the children to summarize for me how we chose the fish. I then asked them to tell me the reasons the fish was chosen. This was an important step because the fish chosen was not the most popular with the children. They did come to understand the decision.

BLOOM LEVELS

Application
Analysis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Science

RELATED CURRICULUM AREA(S) Math

OBJECTIVE: How can rocks be classified?

PROCESS/PROCEDURE:

A. Define the problem--how can we group or classify rocks?

B. List many, varied ways in which we might classify rocks--crystals and no crystals, sizes, shapes, colors, minerals, where made, fossils, no fossils, etc.

C. Set criteria for each different classification.

D. Point out that some rocks can be classified in more than one way--e.g., color and size, minerals and size, etc. Judge which characteristic is more important to help us decide in which group to put the rock.

E. Support the decision by telling why we think one characteristic was more dominant than another.

F. Extend this decision-making project to learn how to draw a bar gaph to symbolize the number of rocks in two classifications (e.g., crystals and no crystals).

BLOOM LEVELS:

Application
Analysis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Science

RELATED CURRICULUM AREA(S) Land Forms

OBJECTIVE: To have students decide how they would divide the super continent, Pangaea, into continents and oceans.

PROCESS/PROCEDURE

A. Give each student a map of Pangaea

B. Have each student define the assignment and list as many possible solutions as he/she is able to generate.

C. Have each student set criteria for his/her new configuration of continents and oceans.

D. Based on the student's criteria have him/her make a judgment as to which possible solution to use.

E. Have each student support his/her problem solution.

BLOOM LEVELS

Application
Analysis
Synthesis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Survival Theme

RELATED CURRICULUM AREA(S) Reading

OBJECTIVE: Examine the tools of survival in a piece of literature and decide its importance.

PROCESS/PROCEDURE:

A. Students will read a chapter book of their choice with a survival theme.

B. Students will discuss the "crisis" of their stories that makes their book of a survival theme. The discussion will include the setting and how the characters have changed because of the survival situation.

C. Students will make a list of all the tools that helped the character survive. This might include objects, nature, animals or other people.

D. Students set criteria. Students must decide which tools were most important. Based on established criteria, rank them in order and give their reasons why.

BLOOM LEVELS:

Analysis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Nutrition - Food Groups

RELATED CURRICULUM AREA(S) Math

OBJECTIVE: To transfer learning of the four food groups into a usable life-situation.

PROCESS/PROCEDURE

A. A group of children will be given $150 to buy groceries for a family of four for one week.

B. Students will list all the possible choices they can buy. After listing their choices the group will need to set up criteria for eliminating some choices. Questions they might consider:

    1. Is this a food everyone likes?
    2. Is this a healthy food?

C. The students will then examine each possible choice giving arguments for or against, evaluating all the choices by using a grid if it's necessary.

BLOOM LEVELS

Analysis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Eye-hand Coordination

Ball work - primary

RELATED CURRICULUM AREA(S)

OBJECTIVE: To decide what one can do to make it easier for a partner to catch a ball.

PROCESS/PROCEDURE:

A. Working with a partner, throw and catch. Define many possible "help" elements.

B. Determine criteria. It will likely involve appropriate distance, pathway of the ball and appropriate force.

C. Students will decide what actions are effective based on the criteria.

D. They'll need to be able to support their decisions.

BLOOM LEVELS:

Application
Analysis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Language Arts - Writing

Journalism

RELATED CURRICULUM AREA(S)

OBJECTIVE: To give students experience in establishing and using criteria for decision-making.

PROCESS/PROCEDURE:

A. Define the problem: You are going to be an editor of a new newspaper in town. What type of audience do you want your paper to reach?

B. Brainstorm all the possible audiences.

C. Consider thoroughly all aspects of the situation--how many papers are there already? Who do they reach? What population is left unserved?

D. Explain each possible decision--given an argument for and against.

BLOOM LEVELS:

Knowledge
Application
Synthesis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA Art's Extravaganza

RELATED CURRICULUM AREA(S)

OBJECTIVE: Children will decide how to choose parts for our play.

PROCESS/PROCEDURE:

A. We chose to adapt a book that we were reading, **Pearl's Promise**, into a play for Arts' Extravaganza.

B. There were 21 parts in the play. We needed a way to assign members of the class parts.

C. Children suggested five ways. Then they gave pros and cons for each one.

D. Then the children voted on the method that they preferred. They chose their top three choices from the list of characteristics and I made the cast list from that. Everyone got one of their choices.

BLOOM LEVELS:

Analysis
Evaluation

TALENT AREA Decision-Making

CONTENT AREA The Artists Hall of Fame

RELATED CURRICULUM AREA(S) Art/Information Gathering

OBJECTIVE: After brainstorming a list of all the artists we have studied over the years in art class or that the students know of from some other source, students will:

1. determine criteria (3-5) by which to compare and contrast these artists. (i.e., their work, their lives, their media, their subject, their philosophy)

2. each research one of the artists listed and report back to the class in regards to the criteria agreed upon.

3. individually decide on four artists to be inducted into their personal Artists Hall of Fame.

4. as a group, decide upon eight artists to be inducted into a class Artists Hall of Fame.

PROCESS/PROCEDURE:

A. Students will compile a list of all the artists we have studied over the years and may include any other artists with whom they are familiar through other sources.

B. Students will determine the criteria by which to compare/ contrast these artists.

C. Students will select and research an artist from the list following the criteria set up by the class.

D. Students will make a presentation to the class of the information they have gathered, making a case for this person's admittance into the Hall of Fame.

E. Based on the information presented, students will make a judgment as to which four artists they will induct into their Artists Hall of Fame. They will need to support their decision before the class.

F. Based on the individual Hall of Fame presentations, the class will determine its own Artists Hall of Fame and support their overall decision.

BLOOM LEVELS:

Analysis: Compare/Contrast
Synthesis: Integrating the information gathered
Evaluation: Decide, support

TALENT AREA Decision-Making

CONTENT AREA Art

RELATED CURRICULUM AREA(S) Portraits

OBJECTIVE: The class will be divided into six groups of four each. Each group will be asked to develop a theme and select the reproductions of portraits to communicate that theme to the school audience. The students will install the exhibit in the predetermined spaces when decision-making and planning are complete.

PROCESS/PROCEDURE

A. The class will be divided into six groups of four each. Each group will be assigned a space, which was selected in the previous lesson and be given the information developed in the last lesson, which they need in order to put up the exhibit. They should go see the space.

B. The teacher will put out all the reproductions which are available for the students to use. In their groups the students should make a list of three or four themes which they might use (women, men, abstract, one artist, showing an emotion, depicting a type of person, work since 1930, children, one style, a variety of styles). After they make their lists there will be a class discussion about the theme (are the themes usable, why, why not, what will people learn from these, will they need more explanation, how can you do that, words, etc.). The teacher, in conjunction with each group, will determine the theme to be used.

C. In their respective groups the students will choose the reproductions to be shown in the exhibit. They should establish criteria for choosing the reproductions (size to fit space, number, do they fit the time, are the ones we want available, etc.). The criteria developing process should be flexible and may change or need to be altered as choices are made.

D. Each group will then decide how to mount the reproductions. List things to think about (background, color, texture, etc., words? do we need them? how to make the words, placement of each part, can it be seen from a distance, from how far away does it need to be readable? etc. . .)

E. The students will install the mini exhibit in the space assigned.

F. The students will develop criteria for a successful exhibit and make judgments about the exhibits.

PLANNING

PLANNING TALENT

Definition

The ability to plan effectively involves skills in the areas of elaboration, sensitivity to problems, and organizing.

- **Elaboration** - the ability to develop detailed sequences explaining what is to be done . . . being able to identify the purpose, the process, and the end product
- **Sensitivity to problems** - the ability to understand how outside or personal factors may affect how something is done
- **Organization** - the ability to secure materials and human resources and to arrange for the time, space, and money necessary to accomplish a task

Teaching Process

1. Determine what is the task to be accomplished
2. Identify the materials and human resources necessary
3. Develop a detailed sequence of steps explaining what is to be done
4. Identify the time, space, and money necessary
5. Pinpoint possible outside or personal factors that may affect the plan
6. Develop possible alternative plans if a problem interfers
7. Carry out the plan (optional)

The Talented Creator (Renzullie, et al., 1976)

1. Determine what information or resources are necessary for accomplishing a task
2. Grasps the relationship of individual steps to the whole process
3. Allows time to execute all steps involved in a process
4. Foresees consequences or effects of actions
5. Organizes his or her work well

6. Takes into account the details necessary to accomplish a goal

7. Is good at games of strategy where it is necessary to anticipate several moves ahead

8. Recognizes the various alternative methods for accomplishing a goal

9. Can pinpoint where areas of difficulty might arise in a procedure or activity

10. Arrange steps of a project in a sensible order or time sequence

11. Is good at breaking down an activity into step-by-step procedures

12. Establishes priorities when organizing activities

13. Shows awareness of limitations relating to time, space, materials, and abilities when working on group or individual projects

14. Can provide details that contribute to the development of a plan or procedure

15. Sees alternative ways to distribute work or assign people to accomplish a task

Reference:

Maker, C. June. **Teaching Models in Education of the Gifted.** Austin, Texas: Pro-Ed, Inc., 1982.

PLANNING TALENT

1. DETERMINE TASK (**WHAT**)
2. DEVELOP STEPS (**HOW**)
3. IDENTIFY TIME, SPACE, RESOURCES (**THINGS**)
4. IDENTIFY POSSIBLE PROBLEMS
5. DEVELOP ALTERNATIVE PLANS

PLANNING CUES

- **Develop** a plan . . .
- **Design** a systematic way to . . .
- **Arrange** your work in an organized way . . . so that . . .
- **Prepare a budget** which provides for . . .
- **Develop a timetable** to show the order of . . .
- **Represent** your findings using a bar graph.
- **Think it over** then **tell me exactly** . . .

Additional Cues:

Consider, provide, locate, propose, coordinate, designate, relate, label, implement, determine, signify, mark, plot, initiate, integrate, systemize, include, prepare, and arrange.

PLANNING TALENT

Student Role

Planner, Executer

Sample Student Activities

- Plan all activities for a day; at the end of the day evaluate the plan
- Plan a party, have it, and then evaluate its success; plan another and learn from past mistakes
- Plan a class field trip
- Plan a reenactment of some event from the past - either real or fantasy
- Draw a blueprint for a school
- Plan a day in the life of a famous person

Teacher Role

Stimulator, Questioner

Teacher Activities

Develop situations for planning.

Create situations for students to develop and carry out their own plans.

Ask questions that require students to elaborate on their plans, become more sensitive to problems, design alternatives for solving possible problems., design effective and efficient organizational plans, develop step-by-step procedures, and use resources wisely.

Summary of Teacher and Students Roles and Activities in Calvin Taylor's Multiple Talent Approach <u>Teaching Models in Education of the Gifted</u> (Maker, 1982)

TALENT AREA Planning

CONTENT AREA Publishing a Book

RELATED CURRICULUM AREA(S) Language Arts/Art

OBJECTIVE: Each child will write, plan, illustrate and make their own published books.

PROCESS/PROCEDURE

A. Read **How A Book is Made** by Aliki and discuss the book-making procedure (planning). This will take several days.

B. **Steps:**

1. Write a story
2. Revise and edit with peers and/or teacher
3. Fold a piece of manila paper into eighths and each student will plan what parts of the story will go on what page. (This folded paper is the dummy.) Then the student writes these words on the appropriate parts of the dummy.
4. Students draw simple illustrations on their dummy
5. The story is typed (by student or teacher) onto the real book pages
6. Student does final illustrations on the real book pages
7. Student chooses material and construction paper for book
8. Put book together using needle, thread, glue, stitch witchery and iron.

C. Consider problems that might occur and figure out what should be done if they occur.

Problem: A student makes an unfixable error in his/her final illustration.

Solution: Cut out a piece of paper the correct size, make new illustration and glue it over error.

BLOOM LEVELS

- Application
- Analysis
- Synthesis

TALENT AREA Planning

CONTENT AREA Reading (Circus Unit)

RELATED CURRICULUM AREA(S)

OBJECTIVE: To give students an opportunity to design a new circus act in an organized and systematic way.

PROCESS/PROCEDURE

A. Read the book, **"If I Ran the Circus."**

B. Ask the students to propose a new circus act.

C. Each student will think about their new act and describe it in writing and illustration; label and explain needed materials; and, signify possible problems.

BLOOM LEVELS

- Application (putting to use)
- Synthesis (rearranging, combining)

TALENT AREA Planning

CONTENT AREA Reading

RELATED CURRICULUM AREA(S) Math

OBJECTIVE: Students will plan a surprise going away party for their student teacher.

PROCESS/PROCEDURE

A. The class will discuss and decide upon the "type" of party they will have.

B. The students will generate a list of what they will need to do and bring or make to have such a party.

C. Each person will volunteer to do, make or bring one thing. They should write their names next to their jobs on the class chart. Individual decisions should be made as to how long it will take to complete each task.

D. The class should brainstorm possible problems, e.g., what if someone forgets, and possible solutions to those problems.

BLOOM LEVELS

- Application
- Analysis
- Synthesis

TALENT AREA Planning

CONTENT AREA Math

RELATED CURRICULUM AREA(S) Woodland Indians

OBJECTIVE: The students will better understand the use of wampum. They will be able to list advantages and disadvantages of wampum in comparison with money.

PROCESS/PROCEDURE:

A. Develop a plan for opening up a store.

B. Decide what is to be sold in store. Decide how much each item is worth according to supply and demand.

C. Organize committees for setting up store.

D. Provide a way for students to earn wampum in classroom.

BLOOM LEVELS:

Knowledge
Comprehension
Application

TALENT AREA Planning

CONTENT AREA Language Arts - Writing/Reading

RELATED CURRICULUM AREA(S)

OBJECTIVE: I have data collected at the cemetery. How can we display the data we've collected?

PROCESS/PROCEDURE:

A. Determine what task is to be accomplished - see objective

B. Identify materials and human resources available. Chart paper - markers

C. Develop a detailed sequence of steps explaining what is to be done - chart various information found (age at death, males vs. females, year of death, etc.)

D. Pinpoint possible outside factors that may affect the plan. (space to display, not enough information, etc.)

E. Develop alternate plan.

F. Carry out plan.

BLOOM LEVELS:

Analysis
Synthesis

TALENT AREA Planning

CONTENT AREA Literature and Writing

RELATED CURRICULUM AREA(S) Science, Social Studies

(Friendship)

OBJECTIVE: To plan a day in the life of an animal character about which we had read.

PROCESS/PROCEDURE:

A. Read books: **Amos and Boris**
The Lion and the Mouse
The Checker Players
Two Good Friends

B. Discuss characters as we read each book. Emphasize information which we learn from the book. Write down this information on paper as we read and discuss each book.

C. Pretend to be one of the story characters. Determine what we could do each day and how we could do it. Tell where we are, time of day, and what we use to do these activities.

D. We could encounter problems or situations and tell how we might solve them. Tell these steps.

E. Write down our ideas.

F. Write ideas as a story called, "One Day in the Life of (Character's name)."

BLOOM LEVELS:

Analysis
Synthesis

TALENT AREA Planning

CONTENT AREA Social Studies - Indian Unit
Families, Famous Americans, Pilgrims, Christopher Columbus, Plants, Seasons

RELATED CURRICULUM AREA(S)

OBJECTIVE: The students working in a small group, will select information about a particular American Indian tribe and plan how to present it to the class.

PROCESS/PROCEDURE

A. **Motivation**

After the whole class is exposed to some basic information, literature and videos about various Indian tribes, the class divides into several tribes representing different sections of the country. Each tribe gathers and lists information about itself.

B. **Planning Activity**

Students plan how to represent their tribe to the rest of the class. Out of all the information they have, they determine:

- what they want to present to the class
- how to present it in the space and time they have
- what materials or additional information are needed
- develop the steps in the project and list details
- decide who is going to do what
- try to foresee problems that might arise
- develop possible alternative plans

C. Students carry out their plan.

D. Students evaluate their plan after they have executed it.

BLOOM LEVELS

- Knowledge
- Application
- Analysis - summarize
- Synthesis - design, create, produce
- Evaluation - select, choose, decide, discuss

TALENT AREA Planning

CONTENT AREA Social Studies

RELATED CURRICULUM AREA(S) Written Communication

OBJECTIVE: To plan a project (small group) that would show the accumulated knowledge of the unit on Japan and use group participating skills.

PROCESS/PROCEDURE

A. Background - extensive study of Japan - cultures, economics, historical references.

B. Small group (3-4) assigned by teacher to be well rounded group - heterogeneously - groups given assignment to be a travel agency and plan a tour to Japan - name agency, plan where tour will convene, airlines, fees, how many people, length of tour, places to see, what cities to visit, use of trains and local transportation, maps, tour booklet.

C. Resources - travel agencies, libraries, for ideas - present project on video and critique for authenticity, good planning, etc.

BLOOM LEVELS:

- Analysis
- Synthesis

TALENT AREA Planning

CONTENT AREA Social Studies

RELATED CURRICULUM AREA(S) Written Communication

OBJECTIVE: After an in-depth study of the Pacific Region of the United States, students will plan a Pacific Region Extravaganza.

PROCESS/PROCEDURE

A. Student committees have thoroughly researched literature, entertainment, art, music, food, people, geography, history, industry, and agriculture of the states in this region. A large web would be constructed to have visual reinforcement of newly-learned concepts.

B. Students are asked to come up with a plan to experience (see, feel, taste, smell, and touch) as much of our web in one day.

C. Students answer the following planning steps:

1. What parts of our web can be covered realistically? Why? Give support.

2. What supplies can we get from:

   . . . school?
   . . . home?
   . . . do we need to purchase?

3. Who will bring supplies?

4. Who else do we want to invite?

5. Do we want to send out invitations?

D. Students are asked to brainstorm possible problems and solutions for our plan.

BLOOM LEVELS

- Analysis - if students make and complete survey using planning questions
- Synthesis - predict possible problems

TALENT AREA Planning

CONTENT AREA Social Studies - Geography

RELATED CURRICULUM AREA(S) Research - Math - Map Skills

OBJECTIVE: To plan a family trip through a region of the United States (Northeast, Southwest, etc.).

PROCESS/PROCEDURE

A. Plan a family vacation for one to two weeks to a region in the United States.

B. Steps to be considered:

1. Place to go
2. Amount of money family has to spend
3. Type of transportation the family will use
4. Places everyone will visit

C. Students need to anticipate any problems that might occur and plan for alternative choices. Such as: What if some of the family wants to see some of the selected places?

D. Having considered all the above, an itinerary will be made for their vacation.

BLOOM LEVELS

- Synthesis
- Evaluation

TALENT AREA Planning

CONTENT AREA Social Studies (Grandperson's Day)

RELATED CURRICULUM AREA(S) Math

OBJECTIVE: The students will plan the activities and sequence of events for Grandperson's Day, which culminates our family unit.

PROCESS/PROCEDURE

A. The students were asked to plan Grandperson's Day.

B. The students were informed about the length of the event, when it would take place, where, and activities that had to be included.

C. We then discussed the steps we as a class would have to take to assure that the event went smoothly. E.g., invitations had to be sent, activities planned, refreshments prepared . .

D. After planning when and how to send the invitations, sequence of activities, and refreshment preparation, we then discussed problems.

Three possible problems were identified: possible lack of time to do everything planned, extra time with nothing to do, and Grandperson's not knowing what to do.

We spent a great deal of time discussing possible solutions to these problems.

BLOOM LEVELS

- Analysis
- Evaluation

TALENT AREA Planning

CONTENT AREA Social Studies

RELATED CURRICULUM AREA(S) Mini Society

OBJECTIVE: After forming a mini society as a class each set of partners will determine their own type of business.

PROCESS/PROCEDURE:

A. Students will make a list of possible businesses to choose from. Once chosen they must explain how they came to that decision.

B. Students must discuss how to make their product or provide their service. They will make a list of materials needed and discuss where these materials will come from.

C. Students will discuss how much time is needed before they can start their business and how much their good or service will cost.

D. Students will keep a daily record of their business in their mini society journals.

E. Prior to the first business day, students will write about **potential problems and possible solutions.**

BLOOM LEVELS:

Comprehension
Application
Synthesis

TALENT AREA Planning

CONTENT AREA Middle Ages/Shakespeare

Experience

RELATED CURRICULUM AREA(S) Social Studies

OBJECTIVE: Students will develop a plan for the design of a castle, theater, or manor which might have existed in the late middle ages or early renaissance.

PROCESS/PROCEDURE:

A. Students will read about and discuss such structures as well as the technology and materials available during the time period.

B. Students will list and identify the specific elements necessary to be included in such structures.

C. Students will identify the types of materials required, tools available, and makes estimates of pillars required to construct the structure.

D. Students will prepare a blueprint (design) which includes a structural design, construction materials, tools utilized, and people/animals required (i.e., craftsman, peasants, animals, etc.).

BLOOM LEVEL:

Application
Analysis
Synthesis
Evaluation

TALENT AREA Planning

CONTENT AREA Social Studies - Indians

RELATED CURRICULUM AREA(S)

OBJECTIVE: Children will plan our first annual popcorn festival!

PROCESS/PROCEDURE:

A. We talked about the Indians of Ohio. We read about, ate, talked about, and did activities with popcorn for a week.

B. On Thursday we had a popcorn festival to celebrate our great harvest!

C. The children broke up into small groups. Each group planned one aspect of the festival (games, food, decorations). Children chose their own group. I presented each group an obstacle so they had to replan.

D. Things the food group wanted were unavailable.

E. The decorations group had to find a way to hang the banner.

F. We ran out of time to play all of the games. (This one really happened!)

BLOOM LEVELS:

Analysis

TALENT AREA Planning

CONTENT AREA Social Studies - Bexley

RELATED CURRICULUM AREA(S)

OBJECTIVE: Students will develop a plan for places to be visited and in what order for our Bexley tour.

PROCESS/PROCEDURE:

A. Determine task: decide which places of interest to visit. Consider amount of time needed. List places.

B. Develop steps: using a map of Bexley plot the route we will take to make the best use of our time.

C. Identify time and space - discuss how 60 students can visit mayor and police station in one hour.

D. Identify problems - what will we do if it rains? Which things must be omitted? What can we do instead?

BLOOM LEVELS:

Analysis
Synthesis
Evaluation

TALENT AREA Planning

CONTENT AREA Science lesson with magazine "Super Science" (a supplementary magazine from **Scholastic**)

RELATED CURRICULUM AREA(S)

OBJECTIVE:

1. Observe shapes in structures
2. Communicate about different types of structures
3. Investigate how shapes are affected by push and pull forces
4. Infer that the triangle is a stable shape
5. Gather data about the strength of structures of different shapes

PROCESS/PROCEDURE

A. Read magazine for homework to become familiar with concepts.

B. Divide into cooperative groups by selecting one of five experiments to explore the five objectives.

C. Discuss materials needed and decide who will bring what to do it.

Discuss problem to be experienced and make predictions and extensions.

D. Do experiment and gather data.

E. Report findings to large group and make conclusions.

BLOOM LEVELS

- Knowledge - Gathering of information
- Comprehension - Reading materials and understanding experiment
- Application - Doing the experiment
- Analysis - What things will we need?
- Synthesis - What problems might we have with our experiments?

TALENT AREA Planning

CONTENT AREA Science

RELATED CURRICULUM AREA(S) Landforms

OBJECTIVE: To have the class help Ms. Frizzle plan a field trip into the earth for an intensive study of earthquakes and volcanos using the The Magic Schoolbus.

PROCESS/PROCEDURE

A. Have groups determine the supplies and equipment necessary to take the class on a field trip into the earth.

B. Have the groups develop the steps they will have to go through to decide what is really necessary for the trip, how they will acquire the necessary supplies, and who will be responsible for the supplies.

C. Have students identify when would be the best time to plan the trip, how they will make use of the limited space on the bus, and what resources they have available to them.

D. Have the students identify possible problems which might occur on their trip into the earth.

E. Have each group of students develop alternate plans that might be used should one of the above problems occur.

BLOOM LEVELS

- Application
- Analysis
- Synthesis

TALENT AREA Planning

CONTENT AREA Science - Mammals

RELATED CURRICULUM AREA(S)

OBJECTIVE: Plan arrangement of Mammal Zoo (culminating activity)

PROCESS/PROCEDURE

A. Review steps and importance of planning.

B. Teacher, "What are some ways we can arrange our mammals in our Mammal Zoo?"

Possible Responses:

Habitat
Color
Size
Alphabetical order

C. What materials do we need?

Possible Responses:

Name tags
Written report
Stuffed mammal
Labels

D. Identify possible problems

Possible Responses:

Amount of space
Cooperation
Need clear instructions and directions

E. Alternative plans

Possible Responses:

Push desks together - space
Have zoo areas posted - clear directions
Don't know ABC'S - look at chart, etc.

BLOOM LEVELS

- Analysis - Categorize
- Synthesis - Invent new way/method of grouping
- Evaluation - Opinion/reason

TALENT AREA Planning

CONTENT AREA Health (Nutrition)

RELATED CURRICULUM AREA(S)

OBJECTIVE: To give students experience with designing a plan that achieves a goal, and to provide an application experience of their knowledge of good nutrition.

PROCESS/PROCEDURE

A. Task:

Make a grocery shopping list for all items needed for a packed lunch to be eaten on an outdoor field trip.

The following stipulations exist:

1. Nothing can require refrigeration
2. A drink must be included
3. The lunch must include at least one item from each of the four food groups
4. The list should include any materials needed to wrap and eat the foods

B. Students can identify problems in their lists by drawing and cutting out each item on their lists and then by role-playing packing and eating their lunches. This can be done in partners.

C. Alternate plans can be determined if a problem exists.

BLOOM LEVELS

- Application
- Analysis
- Synthesis

TALENT AREA Planning

CONTENT AREA Art

RELATED CURRICULUM AREA(S) Portraits

OBJECTIVE: Students will select the space and plan for the installation of six mini-exhibits (bulletin boards) within the school. Each exhibit will be centered around a theme developed in the classroom.

PROCESS/PROCEDURE

A. Students will be told the assignment and shown some of the portraits which will be available for installation in their exhibit.

B. During a class discussion students will make a list of all the possible spaces for a mini-exhibit in the school. A walk around may be needed.

C. Then the students will identify the sequence of steps which need to be done in order to use these spaces.

- Measure
- Secure permisison to use
- Who to get permission from
- Who would see this area most (parents, primary, intermediate)

Students will determine the answers to these questions, secure the permission to use the space and make a list of all the information the group, which will use each space, might need.

TALENT AREA Planning

CONTENT AREA The Artists Hall of Fame Award and Presentation

RELATED CURRICULUM AREA(S) Art

OBJECTIVE: After determining the inductees into the Artists Hall of Fame through decision-making lesson, students will:

1. plan and design the type of award to be presented to the Hall of Fame inductees.

2. plan the actual presentation ceremony for the inductees.

PROCESS/PROCEDURE:

A. Students will be divided into two or three groups, each group being responsible to plan the award and the ceremony.

B. Students will first plan how they will organize their time and people to accomplish the tasks at hand. They will produce a diagram of their timeframe and a breakdown of each student's responsibilities.

C. Students will develop a detailed step-by-step plan for the creation of the Hall of Fame award and the subsequent presentation ceremony. This is to include the time, space, materials, and money necessary, as well as contingency plans in case problems arise.

D. Groups will present their proposals to the class.

E. From these proposals, the class will formulate a final plan for the awards ceremony, to be carried out in class.

F. Students who previously researched artists for the initial voting of the Artists Hall of Fame will role-play as that artist for the actual ceremony.

G. Following the ceremony, the students will evaluate the ceremony and the planning involved.

BLOOM LEVELS:

Analysis: Diagram, breakdown
Synthesis: Develop, design, formulate, plan

TALENT AREA Planning

CONTENT AREA Elementary Physical Education

Gymnastics

RELATED CURRICULUM AREA(S)

OBJECTIVE: From three teacher-made lists, choose two stunts from each. Combine these to make a routine you will present to the rest of the class.

PROCESS/PROCEDURE:

A. Students will already have learned the individual stunts. We will have discussed the importance of covering the entire mat surface and of stunts flowing from one to another.

B. Class practice time on the mats will be provided.

C. During practice time I will help each student with possible problems and help with alternative solutions if needed. Each child will have another student to help.

D. Each child will perform his/her finished product. We as a class will discuss if each routine met our established criteria of stunts, space and flow.

BLOOM LEVELS:

Application
Analysis
Synthesis
Evaluation

FORECASTING

FORECASTING TALENT

Definition

The ability to predict future events, to evaluate cause and effect sequences and decide what's most likely to happen based on this evaluation.

This includes:

Conceptual foresight - the ability to foresee patterns or chains of events and their causes and effects.

Penetration - the ability to see clearly all aspects of a situation - to predict how the situation or condition might change and how these changes may affect a prediction.

Social awareness - predicting how other people will react and how their reactions will affect future events. It also includes the ability to foresee whether changes will impose unpleasant or unaceptable conditions upon others and whether change will cause positive or negative effects on people.

Teaching Process

1. Present a hypothetical situation
2. Ask students to make a prediction of what might happen if this situation occurs.
3. Give reasons to support predictions
4. Ask what conditions are necessary to make each prediction come true, and why these conditions are necessary.
5. Reach a conclusion about the most likely result, and support this conclusion.

The Talented Forecaster (Eberle, 1974)

1. Anticipates efforts and outcomes
2. Evaluates past knowledge and experiences
3. Reorganizes past knowledge and experience
4. Views situations objectively
5. Takes into consideration and displays empathy for human reactions
6. Is attuned to his/her feelings and hunches
7. Is not overly concerned about being right in his/her predictions
8. Is socially aware, knows what is going on around him/her
9. Is sensitive to actions that would effect the situation and others
10. Clearly perceives situations of cause and effect

Reference:

Maker, C. June. **Teaching Models in Education of the Gifted.** Austin, Texas: Pro-Ed, Inc., 1982.

FORECASTING TALENT

1. Present a situation
2. Predict what might happen
3. Support predictions

- -

1. Present a situation
2. Predict causes/effects
3. Examine each prediction
4. Choose best cause/best effect

FORECASTING CUES

From what you have read, **foretell** the outcome of the story

Project your thinking, tell what you think . . . (school, cares, etc.) will be like in twenty years

What might happen if . . .

Taking into consideration all that you know about . . . predict the state of affairs if . . .

What differences would it make if . . . if . . . then . . .

Additional Cues: propose, guess, perceive, imagine, explore, view, anticipate, contemplate, hypothesize, and assume

FORECASTING TALENT

Student Role

Forecaster

Sample Student Activities

1. Predict effects from causes and causes from effects
2. Predict what would happen if there were no gravity
3. Predict what will happen in the world 20 to 50 years from now: explain why these things may happen
4. Predict what your family will be like in five years
5. Predict what will happen in a science experiment
6. What if states could change their capitals every ten years?
7. What if all Indians had been members of one tribe?

Teacher Role

Stimulator, questioner

Teacher Activities

1. Develop hypothetical situations for students to make predictions about
2. Assist students in establishing cause-effect relationships
3. Ask questions that will stimulate students to use their past experiences to predict future events, notice how conditions change and how these conditions affect predictions, notice how people effect and are affected by events, notice how their own behavior affects others
4. Ask what if . . . ?

Summary of Teacher and Student Roles and Activities in Calvin Taylor's Multiple Talent Approach

Teaching Models in Education of the Gifted (Maker, 1982)

TALENT AREA Forecasting

CONTENT AREA Social Studies: Indian Unit, Second Grade

RELATED CURRICULUM AREA(S) Pilgrims; Christopher Columbus, Map Skills, Economics, Predicting, Debating

OBJECTIVE: After role playing what they as Indian tribes might have decided to do in response to the Pilgrims, the students predict what our country would be like today if their decision had indeed been implemented.

PROCESS/PROCEDURE

A. **Motivation** - students brainstorm different thoughts and feelings Indians might have had toward the new settlers in their lands. They further imagine what the Indians might have considered doing about it.

B. **Forecasting Activity** - Students role play being elders of the tribe gathered to consider various courses of action they might take in response to the settlers and what consequences each action they might take in response to the settlers and what consequences each action might bring.

C. For each action, predict what settlers might do in response. Give reasons to support this.
What would Indians be likely to do to this response?
Give reasons to support this and so on to establish a likely chain.

D. Students step out of role of Indians and back to themselves to decide what conclusion they think their tribe would have made and what the result would have been then, and for our country today.

Extension - predict what this country would be like today if Indians had driven the settlers out of the country.

If Indians had let the settlers stay, but under Indian customs.

BLOOM LEVELS

Analysis (compare, contrast, deduce)
Synthesis (forecast, predict, imagine, infer)
Evaluation (assess, discuss, dispute, evaluate)

TALENT AREA Forecasting

CONTENT AREA Indians

RELATED CURRICULUM AREA(S) Reading, Writing

OBJECTIVE: The students will gain understanding of how Indians effect our lives.

PROCESS/PROCEDURE:

A. Research Ohio Indians. Divide into groups.

B. Graph unique characteristics of Indians, i.e., home, food, games, jobs, tools.

C. Develop chart for comparison purposes.

D. Predict how our lives would be different without the influence of the Native Americans.

BLOOM LEVELS:

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

TALENT AREA Forecasting

CONTENT AREA Mound Builders - Present to

- Future Time

RELATED CURRICULUM AREA(S) Ohio History - tools

OBJECTIVE: Predict how man will live in the future -- 2091 A.D. in regard to homes, tools, food, transportation, music, jewelry.

PROCESS/PROCEDURE:

A. Present a situation: The class has studied Ohio mound builders in 1,000 B.C. and compare that life to how we live in Bexley, Ohio in 1991.

B. Extend the thinking. How do you think "Bexley Kids" will live in the future - 2091 A.D.? Chart responses.

C. Committeees gather information from charts and add art illustrations for the three time frames: (tools of prehistoric mound builders, present Bexley, future Bexley).

D. Committee members share their information and project with class. Projects are displayed for further reference.

BLOOM LEVELS:

Knowledge
Analysis
Synthesis
Evaluation

TALENT AREA Forecasting

CONTENT AREA Current Events

RELATED CURRICULUM AREA(S) Social Studies

OBJECTIVE: Students will explain the effects of state secession of Ohio from the United States of America and relate them to Quebec's desire to secede from Canada.

PROCESS/PROCEDURE:

A. Present the situation -- what if Ohio would secede from the U.S.A.? What would be the effects on trade, government, currency, etc.

B. Write many, varied, unusual predictions as you can -- analyze each prediction -- compare to other predictions -- students will work in groups of three or four.

C. Prepare a reason(s) for each prediction.

D. Prepare a final paper, for the group, which includes a list of predictions with corresponding reasons.

E. Discuss, compare and contast these predictions for Ohio with Quebec.

BLOOM LEVELS:

Application
Analysis
Synthesis
Evaluation

TALENT AREA Forecasting

CONTENT AREA Social Studies - Pioneers

RELATED CURRICULUM AREA(S) Science

OBJECTIVE: Children will explain what electricity does in their lives.

PROCESS/PROCEDURE:

A. After talking about pioneers for several weeks, we talked about differences between our lives and the pioneers' lives.

B. We talked about the role electricity plays in our lives.

C. Then we made a list of how the pioneers' lives would hve been different if they had had electricity.

D. We discussed cause and effect. The children couldn't imagine life without television.

BLOOM LEVELS:

Knowledge
Comprehension
ANalysis
Synthesis

TALENT AREA Forecasting

CONTENT AREA Social Studies - Geography

RELATED CURRICULUM AREA(S) Map Skills

OBJECTIVE: Reinforce the concept that there are certain factors that influence where cities grow and develop.

PROCESS/PROCEDURE

A. The students will be divided into groups of three or four. Each group will be given a map with various landforms marked on it.

B. Predictions in each group will be made. In order to leave a city in its location, the students must support their reasons for the placement.

C. All groups will meet together and compare their maps. Once again, supporting their predictions in order to keep the cities' locations.

BLOOM LEVELS

Analysis

TALENT AREA Forecasting

CONTENT AREA Winter/Seasons/Weather

RELATED CURRICULUM AREA(S) Language Arts/Science

OBJECTIVE: To predict what it would be like if it snowed every single day.

PROCESS/PROCEDURE

A. Read and discuss the book Flowers for the Snowman. (In this book, a snowman is in search of colorful flowers, but can't find them because flowers don't grow in the winter.)

B. **Situation:** "What if it always snowed?" (Write this on chart paper)

C. Students brainstorm all of the possibilities that they can think of. (Teachers write them down)

Example: Sick of wearing winter clothes, can't go swimming, can't go barefoot.

BLOOM LEVELS

Knowledge
Comprehension
Analysis
Synthesis

TALENT AREA Forecasting

CONTENT AREA Science - plants

RELATED CURRICULUM AREA(S) Math and Writing

OBJECTIVE: What is a suitable environment in which seeds can grow?

PROCESS/PROCEDURE:

A. Will seeds grow:

Sun		Water?
dark	without	water?
dark	with	water?
light	without	water?
light	with	water?

B. Forecast or predict what you think might happen (based on things we know plants need in order to grow) in each of the above conditions.

C. Students record predictions about each seed in different conditions.

D. Students check seeds daily and record their observations on a chart.

E. After two and a half weeks students discuss their recorded observations and decide on the suitable environment for seeds to grow.

BLOOM LEVELS:

Knowledge
Application
Analysis

TALENT AREA Forecasting

CONTENT AREA Energy and Earth Day

RELATED CURRICULUM AREA(S) Science, math, language arts

OBJECTIVE: Predict number of appliances. Students survey and tally energy use at home, contribute their information to a class graph, and discuss the advantages and disadvantages of some common appliances.

PROCESS/PROCEDURE

A. Prepare energy graph and students enter their data--energy survey of ways we use energy = **necessary** both **fun** and **convenient**--after discussing background of energy and appliances at home.

B. Each student takes survey at home of all the ways they use energy at home and of the home appliances at home.

C. Each student chooses an hour block of time in which they record all the ways they use energy. Also, they estimate the number of appliances in the home and then make an actual list.

D. Make a graph of all the results after compiling. Hold discussion.

BLOOM LEVELS

Knowledge - gather information on energy and appliances.
Explain how these could be used to conserve--example: don't run dishwasher until full
Comprehension
Application - discuss survey and take home after predicting how many appliances found in home.
Analysis - make a list and conduct survey
Synthesis
Evaluation - tally results in bar graph and discuss results

TALENT AREA Forecasting

CONTENT AREA Science (butterflies)

RELATED CURRICULUM AREA(S) Math (calendar) Any living things

OBJECTIVE: Students will use their knowledge of the butterfly's life cycle to forecast when our classroom caterpillars will become butterflies.

PROCESS/PROCEDURE

A. After learning about the life cycle of the butterfly through books and projects, the students were asked to predict when they thought our classroom caterpillars (now in their chrysalis) would become butterflies.

B. Calendars were passed out, and the children were asked to circle the date they believed to be the most likely time for the butterflies to appear. I then collected the calendars.

C. Butterfly stickers were placed on the classroom calendar to show each persons' prediction.

D. The students were then asked to volunteer to explain their predictions.

BLOOM LEVELS

Analysis
Synthesis

TALENT AREA Forecasting

CONTENT AREA Science

RELATED CURRICULUM AREA(S) Writing and Math

OBJECTIVE: Students will predict the conditions necessary for seeds to germinate.

PROCESS/PROCEDURE

A. After the students have planted their own seeds they are asked, taking into consideration what you know about seeds, what do you think will happen? What might happen if the seeds did not recieve water or sunlight? What difference, if any, would it make if they received a lot of extra water? Additional seeds are planted and placed in each of these conditions.

B. Record student predictions about each cup on a chart.

C. Students observe the three cups plus their own over a two week period.

D. After two weeks, the students discuss, as a group, their observations. Then based upon these, list the conditions necessary for seeds to germinate.

BLOOM LEVELS

Knowledge
Application
Analysis

TALENT AREA Forecasting

CONTENT AREA Science - Dinosaurs

RELATED CURRICULUM AREA(S) Geography/Maps

OBJECTIVE: Predict what a continent would be like if dinosaurs were alive today.

PROCESS/PROCEDURE

A. Review forecasting talent.

B. **Situation:** Scientists have discovered a large continent where dinosaurs are living with human beings. Imagine that you have been chosen to visit the continent. What might you observe?

C. Student predictions and reasons are recorded on chart paper (possible responses: environment, food, protection, homes, other animals.)

D. Based on what we've learned about dinosaurs, which predictions are most likely to be true: Give reasons.

E. Draw scenes of this continent.

BLOOM LEVELS

Knowledge - comprehension
Analysis - compare life now to dinosaur world
Synthesis - imagine, predict
Evaluation - decide, discuss, conclude

TALENT AREA Forecasting

CONTENT AREA Science

RELATED CURRICULUM AREA(S) Landforms

OBJECTIVE: To have the student forecast on how the world would be different today if Pangaea had never separated.

PROCESS/PROCEDURE

A. Present groups of students with the question "How would the world be different today if Pangaea had never separated?"

B. Have each group make predictions about what might have happened to the people, governments, religions, economics, life styles, etc. if there were one super continent rather that seven smaller continents in the world.

C. Have each group list and share facts that would support its predictions.

BLOOM LEVELS

Application
Analysis
Synthesis

TALENT AREA Forecasting

CONTENT AREA Interaction of Objects

RELATED CURRICULUM AREA(S) Science

OBJECTIVE: Students receive a tray with various objects (battery, bulb, wire, magnet, etc.). Before manipulating objects students predict which ones will interact and tell evidence of interaction.

PROCESS/PROCEDURE:

A. Students examine objects on tray and predict which ones will interact. Responses are listed on board. Tell why you think as you do.

B. Students work with a partner and cause objects to interact.

C. Students compare actual interactions to those predicted. Note which ones were correct and which ones were omitted. Give evidence of interaction to support decision.

BLOOM LEVELS:

Synthesis
Analysis
Evaluation

TALENT AREA Forecasting

CONTENT AREA Health (Rules and Behavior)

RELATED CURRICULUM AREA(S) Written Expression

Oral Expression

OBJECTIVE: To give students experience in cause/effect thinking.

PROCESS/PROCEDURE

A. Each student needs a partner. Together they should choose a classroom or school rule which they consider to be important.

B. The teacher should present the following situation: Imagine that our school or classroom no longer has this rule.

Have the students predict what the school or classroom would be like without this rule.

C. The students can support their predictions by writing a story about what the school or class would be like without the rule, or they could illustrate the effect, or the students could role play their predictions.

(The teacher could "cooperate" by trying to operate the class for a short time without a particualr rule in order to see if any of the predictions come true. Results can be discussed.)

BLOOM LEVELS

Analysis
Synthesis
Evaluation

TALENT AREA Forecasting

CONTENT AREA Language Arts

RELATED CURRICULUM AREA(S) _____

OBJECTIVE: To be able to evaluate cause and effect sequences

PROCESS/PROCEDURE:

A. Present a hypotehtical situation -- what if there were no newspapers?

B. Ask students to make a prediction of what might happen if there were no newspapers.

C. Give reasons to support predictions.

D. Ask what conditions would have to occur to bring about the loss of newspapers.

E. What is likely to be the result if there were no newspapers?

BLOOM LEVELS:

Analysis

TALENT AREA Forecasting

CONTENT AREA Literature/Reading

RELATED CURRICULUM AREA(S) Read Aloud

OBJECTIVE: Students will write their own ending to the book **A View from a Cherry Tree.**

PROCESS/PROCEDURE:

A. Students will discuss the elements of a mystery -- the setting, believable characters, the plot (climax), clues.

B. I will read the mystery **A View from a Cherry Tree** as our class read aloud each day for 30 minutes.

C. At the point in which the mystery is about to be solved I will stop reading and ask the students to write their own prediction about the ending to the story in their reading journal.

D. The prediction should include:

1. **Who** did it?
2. An explanation of **how** he/she did it.
3. An explanation of **why** he/she did it.
4. An explanation of **what happens** to the characters after the mystery is solved.
5. Support for their prediction.

These will all be shared in class prior to the reading of the book's conclusion.

BLOOM LEVELS:

Knowledge
Comprehenison
Application
Analysis
Synthesis

TALENT AREA Forecasting

CONTENT AREA Reading

RELATED CURRICULUM AREA(S) Science/Environment

OBJECTIVE: Students will be involved, focused, and excited about a new read aloud. (Prereading activity for Lafcadio, The Lion Who Shot Back, by Shel Silverstein

PROCESS/PROCEDURE

A. Students are asked if they would like to be able to talk with animals. They are asked to support their answers.

B. Students are asked what they would say to animals. Next students will role play.

C. Students are asked to "shift into reverse" and role play what animals would say to them. (Teacher asks many questions to guide students to the real danger--humans.)

D. Show book cover to students and ask them to predict either verbally or in writing why Lafcadio, a lion, would shoot back.

BLOOM LEVELS

Synthesis - making predictions

TALENT AREA Forecasting

CONTENT AREA Elementary Physical Education

running long distances

RELATED CURRICULUM AREA(S)

OBJECTIVE: To predict successful elements when running the Montrose Mini Marathon.

PROCESS/PROCEDURE:

A. Before we run the marathon students will decide what constitutes "successful standards" for them, i.e., running the entire distance, running half the distance without stopping, pacing a particular student, etc.

B. Give reasons why they feel they can reach their personal standards.

C. List what they must do to reach their personal success standard (determining cause and effect).

D. During the class period immediately preceding the Mini Marathon reach a conclusion about their most likely result and support their decision.

BLOOM LEVELS:

Application
Analysis
Synthesis

TALENT AREA Forecasting

CONTENT AREA Art

RELATED CURRICULUM AREA(S) Portraits

OBJECTIVE: After evaluating their own work students will try to predict what other students were trying to communicate through their portraits.

PROCESS/PROCEDURE

A. Students work will be displayed in the front of room and each piece will have a number. Each student will be given a number and asked to examine that piece. Using the criteria of the communicating lesson, students will write a short biography of the person in the portrait. They must use information found only in the portrait. The results will be discussed. Discussion will center around what might have been changed. Who is the audience for these?

B. What are other kinds of self portraits? A catalog of a museum exhibit of self-portraits might prove useful. When we go to the museum we will need to be concerned about what the artist is trying to communicate in a portrait and what we can predict about a person from the portrait.

TALENT AREA Forecasting

CONTENT AREA Georgia O'Keefe/Andy Warhol/ Gail Haley

RELATED CURRICULUM AREA(S) Art

OBJECTIVE: After viewing representative work and studying the lives of Georgia O'Keefe, Andy Warhol and Gail Haley, students will:

1. compare and contrast their work, their lives, their media, their subjects and their philosophy.
2. determine what events or factors in these artists lives they think influenced the work they have seen.
3. analyze what characteristic(s) of each of these artists has had an influence on the student's art work.

PROCESS/PROCEDURE:

A. Students are introduced to Georgia O'Keefe and her art work through slides, reproductions and articles. Students produce observational drawings of single flowers.

B. Students are introduced to Andy Warhol and his art work through slides, reproductions and articles. Students will select one of their previous observational drawings and create a new drawing from it.

C. Students are introduced to Gail Haley and her art work through books and illustrations. Students will have the opportunity to meet and ask questions of Gail Haley as a visiting author/illustrator. Students will produce a relief print using the drawing from B as the subject.

D. As a group, the students will determine the criteria by which they will compare and contrast these three artists. As a group, the students will fill in the resulting chart.

E. From this chart, the students will individually analyze how their piece of art work has been influenced by these three artists.

F. As a group, students will collaborate on a class chart determining events and/or factors in these artists lives that seem to have influenced what we see in their art work.

BLOOM LEVELS:

Analysis: compare/contrast
Synthesis: cause/effect

COMMUNICATION

COMMUNICATION TALENT

Definition

The ability to send a verbal or non-verbal message that is understood by the recipient. These developmental facets are included:

1. **Expressional fluency** - skill in expressing thoughts, ideas, needs and the skill in understanding these expressions made by others.

2. **Associational fluency** - understanding the interrelations between ideas, seeing relations between personal thoughts, ideas, and experiences and those of others.

3. **Word fluency** - using words to give precise meaning to add color, beauty, and depth and to convey emotions.

Teaching Process

1. Determine what is to be communicated.

   Example: Questions to stimulate thinking after a science experiment . . .

   a. What were some interesting results?
   b. What were some surprising results?
   c. What results had theoretical significance?

2. Determine with whom this communication will take place.

   Questions to stimulate thinking after a science experiment . . .

   a. What individual or groups would profit from knowing what you found?
   b. What group or individuals are investigating similar questions?
   c. Whose job would be made easier by knowing results?
   d. Who would be curious aobut results?

3. Determine how these results should be communicated to each identified audience

   Questions to stimulate thinking after a science experiment . . .

   a. What results would you share with this audience?
   b. What are all the ways you could communicate these results? (Brainstorm and list)
   c. How do you think the audience would judge your presentation?
   d. Which way will you choose?

The Talented Communicator: (Renzulli et al., 1976)

Expressive

1. Uses voice expressively to convey or enhance meaning
2. Conveys information non-verbally through gestures, facial expressions, and "body language"
3. Is an interesting storyteller
4. Uses colorful and imaginative figures of speech such as puns and analogies

Precision

1. Speaks and writes directly and to the point
2. Modifies and adjusts expression of ideas for maximum reception
3. Is able to edit and revise in a way which is concise, yet retains essential ideas
4. Explains things precisely and clearly
5. Uses descriptive works to add color, emotion, and beauty
6. Expresses thoughts and needs clearly and concisely
7. Can find various ways of expressing ideas so others will understand
8. Can describe things in a few very appropriate words
9. Is able to express fine shades of meaning by use of a large stock of synonyms
10. Is able to express ideas in a variety of alternate ways
11. Knows and can use many words closely related in meaning

Reference:

Maker, C. June. **Teaching Models in Educatoin of the Gifted.** Austin, Texas: Pro-Ed, Inc., 1982.

COMMUNICATION TALENT

1. DETERMINE WHAT IS TO BE COMMUNICATED
2. DETERMINE WITH WHOM IT WILL BE COMMUNICATED
3. DETERMINE HOW IT SHOULD BE COMMUNICATED TO EACH AUDIENCE

Communication Cues

Summarize the story so that we understand the particulars

Give an explanation for . . . tell **why** it happened

Write a poem that clearly **descibes** your **feelings** about war

Have your painting **express joy** (fear, happiness, etc.)

Draw a map showing the shortest **way** to . . .

Additional cues: advise, say, enlighten, demonstrate, sketch, outline, pronounce, gesture, acquaint, announce, recite, translate, inform, convey, verbalize, act out, accent, and articulate

TALENT AREA Communication
CONTENT AREA Social Studies - Indian Unit
RELATED CURRICULUM AREA(S) Language Arts: Oral Language
Drama; Symbols

OBJECTIVE: Given an opportunity to brainstorm many ways to present an Indian folktale that has been told to them, the students will plan to effectively communicate all or parts of the folktale following the Taylor Steps in Communication.

PROCESS/PROCEDURE

A. **Motivation** - For a full explanation of the presentation of the folktale and the brainstorming of ways to present it, see the "Creative Talent Area" in this unit.

B. **Communication Activity** - students determine:

1. What is to be communicated?
   a. What would be most interesting to others?
   b. What would be most important for them to know?

2. Who would be interested in the presentation?
   a. Would a different audience change the presentation ideas?

3. How to make an effective presentation.

   a. Be fluent in <u>expression</u>
      i. Voice: effective, enhancing
      ii. Information: Know it. Tell it.
      iii. Choose a good point of view from which to tell it.

   b. Be fluent in <u>association</u>
      i. Be interesting - use analogies
      ii. Adjust to your listeners

   c. Be fluent in <u>words</u>
      i. Have a large stock
      ii. Practice, revise
      iii. Be precise, concise, clear, to the point

D. **Evaluation** - Students meet to critique their own presentations by mentioning one thing they thought went very well.

BLOOM LEVELS

Knowledge
Comprehension
Application - (Teaching, constructing)
Synthesis - (Discussing, relating, ordering)
Evaluation - (Judging best material, words, delivery)

TALENT AREA Communication

CONTENT AREA Read Aloud - The Green Book

RELATED CURRICULUM AREA(S)

OBJECTIVE: Students will make a prediction based on the text. They will do this through sketching and dramatization.

PROCESS/PROCEDURE:

A. Read alound from **Green Book.**

B. Sketch - ask students to sketch what they think is hatching from Boulder Valley.

C. Share sketches and prediction. Discuss unique characteristic each creature has in order to survive.

D. Have students move as if they were hatching. Based on sketch and unique features, would the animal be likely to survive?

BLOOM LEVELS:

Knowledge
Comprehension
Analysis
Synthesis
Evaluation

TALENT AREA Communication

CONTENT AREA Reading

RELATED CURRICULUM AREA(S) _____

OBJECTIVE: Developing a precision of language

PROCESS/PROCEDURE:

A. Determine what is to be communicated -- Sam of **My Side of the Mountain** decides to go home before his year is up. How is he feeling?

B. Determine with whom this communication will take place.

- who would profit from what you've discovered?
- who would be curious about finding out his feelings?

C. Determine how these results should be communicated to each identified audience.

- what feelings would you share?
- how would you communicate them?
- which way will you choose?

D. Make a collage of adjectives that express the feelings he is experiencing.

BLOOM LEVELS

Analysis
Synthesis

TALENT AREA Communication

CONTENT AREA Language Arts

RELATED CURRICULUM AREA(S) _____

OBJECTIVE: To review sequential order and to identify the main ideas in a book.

PROCESS/PROCEDURE

A. After reading the book **Stone Fox**, the students will discuss the most important events of the story.

B. At the end of the discussion each child will select an event to illustrate and write a brief summary.

C. When all the illustrations are completed the students will put them together in the order that they occurred. The book will be displayed for the other students to read and enjoy.

BLOOM LEVELS

Analysis
Evaluation

TALENT AREA Communication

CONTENT AREA Family and Self Image

RELATED CURRICULUM AREA(S) Language Arts, Reading, Social Studies/Health

OBJECTIVE: Writing a "Me Recipe" poem to communicate what I am like to people who read my poem (to accompany self-portrait)

PROCESS/PROCEDURE:

A. Generate and write down two lists of words that tell about ourselves (feelings, actions, hobbies, etc.) and tell recipe words (measure, fold, stir, tablespoon, cup, etc.).

B. Read "Me Recipe" poem and listen for words poet uses to tell about person (self) in poem and for recipe words used by the poet.

C. Check off words used in poem with words listed above. Add words to the list that are in poem but not in lists.

D. Write a "Me Recipe" poem using the poet's poem outline as a model. Use word lists to help generate words in your own "Me Recipe." Words not on lists are encouaged to be used, too.

BLOOM LEVELS:

Knowledge
Comprehension
Application'
Analysis
Synthesis

TALENT AREA Communication

CONTENT AREA Creative Writing

RELATED CURRICULUM AREA(S) Reading

OBJECTIVE: Students will communicate with others by telling a story from a different point of view.

PROCESS/PROCEDURE:

A. Students will hear **"The Real Story of the Three Pigs."** They will read several versions of **"Jack and the Beanstalk"** and then retell the story from the Giant's point of view.

B. Discuss how story will be different from true version, i.e., students will use "I" for the Giant's thoughts to be expressed.

C. After each student writes their version, stories will be shared.

D. Evaluate to see if student remembered to "keep character."

BLOOM LEVELS:

Application
Analysis
Synthesis

TALENT AREA Communication

CONTENT AREA Peter Spier/Flags

RELATED CURRICULUM AREA(S) Social Studies/Language Arts/Art

OBJECTIVE: To create a class flag that communicates something important/meaningful about our class

PROCESS/PROCEDURE

A. Read and discuss Peter Spier's book, **The Star-Spangled Banner**. Share other books about flags and discuss flag colors and symbolism.

B. What do you want to tell and how will you tell it? The teacher explains the objective and the class discusses what they want to communicate about their class, through a flag.

C. Who will you tell? Other people in the school and in the community?

D. The teacher randomly puts students in small groups of two or three. The students discuss what they want to communicate and the symbols they will use to do this. Using this information, they plan their flag, design it and color it.

BLOOM LEVELS

Application
Analysis
Synthesis

TALENT AREA Communication

CONTENT AREA Social Studies (Famous Black Americans)

RELATED CURRICULUM AREA(S) Any Area

OBJECTIVE: To communicate information learned about famous black Americans to our school.

PROCESS/PROCEDURE

A. As a class, we brainstormed a list of all the famous black Americans we had learned about during the unit.

B. Each child was then asked to choose one American that he/she would like to profile. We discussed the fact that these profiles would be displayed in the hall, and our school would be the audience.

C. We decided to display our information in a "Hollywood Sidewalk of Stars" format, and we called it "Our Black History Sidewalk of Stars."

D. We continued to plan our format by discussing the limited space involved with this project, and the need to deliver as much information as possible (e.g., present only facts.)

BLOOM LEVELS

Analysis
Synthesis

TALENT AREA Communication

CONTENT AREA Pioneer Transportation

RELATED CURRICULUM AREA(S) Ohio History

OBJECTIVE: Compare and contrast a conestoga wagon and a prairie schooner.

PROCESS/PROCEDURE:

A. Display a model of a conestoga wagon and a prairie schooner. Let each child observe the characteristics of each wagon (color, size, wheels, parts, etc.)

B. How are these objects alike? Clarify characteristics unique to both wagons.

C. How are these objects different? Find critical elements of differences.

D. Write a precise definition of each wagon. Each child can then make his/her choice of wagon from cardboard, wood, etc.

BLOOM LEVELS:

Knowledge
Comprehension
Analysis
Application

TALENT AREA Communication

CONTENT AREA Culture/Social Scientists

RELATED CURRICULUM AREA(S) Social Studies

OBJECTIVE: Students will compare and contrast the roles and functions of social scientists.

PROCESS/PROCEDURE:

A. Students will be assigned to five groups of 4 or 5 students.

B. Each group will be randomly assigned one of six social scientists (archaeologist, anthropologist, sociologist, economist, political scientists, or historian).

C. Each group is to prepare and present a skit of approximately five minutes, which focuses on what the social scientist does and how he/she does it.

D. Skits can take a variety of forms -- TV interview show, TV magazines show, expedition, etc.

E. The entire class will compare and contrast the roles and functions of each social scientist. This will be a group discussion.

BLOOM LEVELS:

Knowledge
Comprehension
Application
Analysis

TALENT AREA Communication

CONTENT AREA Science Experiment on Powder

Identification - Science

Observation Processing Critical

Thinking Skills

RELATED CURRICULUM AREA(S)

OBJECTIVE: To examine five different powders and label them. Do they dissolve or not in water?

PROCESS/PROCEDURE

A. Examine each of the five powders with the hand lens.

B. Tell properties of each powder--color, heavy, light, hard, soft--use your senses. Describe smell, feel, etc. Use descriptive language.

C. What are some interesting results of your five powders when they interact with water? Were some results surprising or unexpected?

D. Can we sort these powders into two groups? Those that dissolve and those that don't? Is color a good attribute to use in sorting these powders? (They were all white!)

E. You have five sample powders: salt, baking soda, sugar, sand, and cleansing agent (Ajax). Line these up with labels. Put 1/4 cup water into measuring cup. Add one spoonful of one powder and mix. Record observation and wash and wipe out measuring cup after each one. Watch closely. Test the powders one at a time to see if they will dissolve in water. Does the powder dissolve? Does it settle to the bottom? Test each powder in the same way. Make a summary.

BLOOM LEVELS

Knowledge
Comprehension
Application
Synthesis
Analysis
Evaluation

TALENT AREA Communication

CONTENT AREA Johnny Appleseed

RELATED CURRICULUM AREA(S) Science - Observation, seeds, Plants Health - Nutrition

OBJECTIVE: Compare and contrast characteristics of an apple and a tomato

PROCESS/PROCEDURE

A. Display tomato and apple. "How are these two objects alike?" Record exactly as student says. (They are both red. They both can be eaten. They each have skin.)

B. "How are these two objects different?" (Apple skin is tougher. There are more seeds in a tomato.)

C. Clarify characteristics--for each. (Which are unique to a tomato, apple.)

D. Write a precise definition of an apple and of a tomato.

BLOOM LEVELS

Knowledge
Comprehension
Analysis

TALENT AREA Communication

CONTENT AREA Science

RELATED CURRICULUM AREA(S)

OBJECTIVE: To provide experience for students in specifically communicating their observations as they become familiar with observation as part of the scientific process.

PROCESS/PROCEDURE

A. Students will be asked to describe an object--after "observing" it only through the sense of touch.

B. Prior to the activity, students can brainstorm a list of words that might describe how something could **feel.** (E.g., smooth, damp, warm, slimy, bumpy, round)

Then each student is given a brown lunch bag with one object in it. (I used objects such as an apple, toothbrush, balloon, aluminum foil, dried flowers.)

Students are to reach in their bags and record how their objects feel. (I required at least five observations.)

Students may need help in being specific (like determining if the object is wet or just damp, cool or cold) and in relating only observations (not just determining the identity of the object).

Students can share their observations with a partner.

BLOOM LEVELS

Application
Analysis

TALENT AREA Communication

CONTENT AREA Science/Literature

RELATED CURRICULUM AREA(S) Volcanoes/Poetry

OBJECTIVE: Students will write a poem that describes the eruption of a volcano.

PROCESS/PROCEDURE:

A. As a class we will discuss imagery and descriptive words. How to take something and describe it through your senses.

B. Students will watch a video of volcanoes erupting (colors of lava, action of lava, ashes rock, water, etc.).

C. Students will write down as many words as they can to describe what they see and feel while watching the video.

Students will take these words and compile them in some way to communicate to others.

D. What was seen and felt during the volcanic eruption? Students will share their words as well as in illustration.

BLOOM LEVELS:

Knowledge
Comprehension
Application
Analysis
Synthesis

TALENT AREA Communication

CONTENT AREA Science - water unit

RELATED CURRICULUM AREA(S) Language Arts

OBJECTIVE: Each student will write (in their own words) and illustrate a water fact.

PROCESS/PROCEDURE:

A. We read about water in the science book. We talked about water and read trade books.

B. Each child looked up and rewrote ten facts about water. We talked about how we could share with others the things that we learned.

C. Each child wrote one fact on a piece of paper cut in the shape of a water drop.

D. Then the child illustrated the fact. We hung them on the bulletin board.

BLLOM LEVELS:

Knowledge
Application
Analysis

TALENT AREA Communication

CONTENT AREA Health

RELATED CURRICULUM AREA(S) The Circulatory System

OBJECTIVE: To have students brainstorm and to sort their entry level information about the circulatory system into categories.

PROCESS/PROCEDURE

A. Have groups of students list all the words that come to mind when they hear the phrase circulatory system and have each group read the list to the class

B. Have students locate and cut out pictures that represent words appearing on their list

C. Have students discuss and identify common areas that appear on all lists, e.g., parts, diseases, careers, function, care of (flexibility).

D. Have students write the categories on large sheets of paper, glue pictures on the corresponding sheet, and write the words from their list that goes in each category on the large paper.

E. Display the category sheets in the room and encourage the students to add to the sheets when they find a new word or picture.

BLOOM LEVELS

Knowledge
Application
Analysis

TALENT AREA Communication

CONTENT AREA Elementary Physical Education

Ball Work

RELATED CURRICULUM AREA(S)

OBJECTIVE: Present the original game made up by each group

PROCESS/PROCEDURE:

A. Determine what you are communicating (original game rules)

B. Determine your audience (the class)

C. Explain your original game to the class by verbalizing or showing us.

D. The class will play the game.

E. After the game is played we will have a chance for questions if needed.

BLOOM LEVELS:

Comprehension
Application
Analysis
Synthesis

TALENT AREA Communication

CONTENT AREA Letters to our Great, Great Grandchildren

RELATED CURRICULUM AREA(S) Art

OBJECTIVE: After hearing about **The Public Book** (a community project to create a book of fabric pages designed by the citizens of the Greater Columbus area to mark the Quincentenary in 1991, leaving to future generations a personal record of ourselves, our traditions, our history, our times, and our dreams), students will:

1. determine what they wish to communicate related directly or indirectly to one or more of the following designated themes:
   - 1492 and After: The Encounter of Two Worlds
   - Emigration/Immigration: Strangers in a New Land
   - Family History: Cultural Traditions
   - 1991: Our Life and Times
   - New Worlds: Future Exploration and Discovery
2. determine to whom they will be communicating.
3. determine how they can best communicate this through the required media (stitchery, painting dye process, applique . . .).

PROCESS/PROCEDURE

A. Students will be introduced to **The Public Book.** Students will brainstorm ideas which could be used for this project.

B. Students will discuss to whom they will be communicating and determine a criteria by which best to communicate with this audience.

C. Students will develop sketches for their "page," determining appropriate symbols (non-verbal and/or verbal) through which to communicate. With a partner, they will evaluate their sketches according to the previously established criteria. Students will revise sketches as needed.

D. After selecting their best sketch, students will produce a fabric page for **The Public Book.**

BLOOM LEVELS:

- Synthesis — Create, develop
- Evaluation — Determine criteria, judge

TALENT AREA Communication

CONTENT AREA Art

RELATED CURRICULUM AREA(S) Portraits

OBJECTIVE: The students will examine the portraits which they have created and evaluate what they were trying to communicate with their portraits. They will develop criteria and with a partner evaluate their work. They must be able to substantiate their statements with facts contained within the piece.

PROCESS/PROCEDURE

A. A class discussion will center around determining generally what students were trying to communicate with their portraits (personal emotions, likes, dislikes, public things vs private things, etc.). Also a discusison about how the artist does this best. What are the techniques that an artist can use to aid in this communication (color, size, relationship of one object to another, placement)? Can a portrait be aesthetially pleasing, but communicate very little?

B. The students will work with a partner to develop criteria for evaluating how well their portrait communicated, what they wanted it to communicate. They will work together and check each other's work.

HIGHER LEVEL THINKING

HIGHER LEVEL THINKING

"Teachers must convey to students that the goal of instruction is thinking, that the responsibility is theirs, that it is desirable to have more than one solution, that it is commendable when they take time to plan, and that an answer can be changed with additional information." . . . Art Costa

The goal of assisting students to become more effective thinkers is fundamental to education. We want our students to be engaged in their acquisition of knowledge and become life-long learners.

The teaching of higher level thinking skills must be deliberate, systematic and integrated throughout all content areas and with students of all abilities. Students must be given the opportunity to move further up the hierarchy of thinking than the knowledge and comprehension levels. They need to effectively analyze, synthesize, and evaluate large amounts of information.

A central key to stimulating higher level thinking is questioning techniques. Questions serve to organize thinking by focusing students' attention on the concept and by helping them to clearly define the task to be performed. Research shows that the skillful use of complex questioning is an effective means of increasing student achievement. Asking questions from all levels of the cognition hierarchy will raise the level of student thinking.

Included in this section is information regarding Bloom's Taxonomy and other questioning techniques.

Bloom's Taxonomy of Educational Objectives in the Cognitive Domain

1. **Knowledge** - recall or recognition of previously learned information
2. **Comprehension** - understanding of the meaning of information
3. **Application** - using previously learned information in concrete situations
4. **Analysis** - breaking down information so that critical attributes can be identified
5. **Synthesis** - putting together the component parts of information to form a new whole
6. **Evaluation** - judging the value of information for a given purpose

QUESTIONING LAP CARD
Bloom's Taxonomy Levels

CLUE WORDS	APPLICATION
Evaluation	
Rate	from good to poor
How	could you improve _____ ?
How	can you compare _____ ?
When	could _____ be used suitably ?
Which	ones do you like ?
Classify	according to value
Synthesis	
How	could you improve _____ ?
What	... could be added or combined with _____ to make a new _____ ?
What	is another way to _____ ?
How	many ways can you think of _____ ?
Concoct	a _____ ?
What if	_____ ?
Predict	what happens next
Analysis	
Categorize	the _____
What	... are the parts or features of _____ ?
Why	... is _____ related to _____ ?
Contrast	the _____ .
What	are author's motives?
Application	
How	... is _____ related to _____ ?
How	... can you use _____ to solve the problem ?
Demonstrate	the idea.
How	many?
Comprehension	
What	... is the main idea? _____ ?
How	... can you discuss _____ in (quantity) of words ?
How	... can you arrange _____ in the right order ?
Describe	in your own words
Memory	
What	... is _____ ?
How/Where	... is _____ used ?
When/How	... did _____ happen ?
Define	meaning of

Adapted from Providing Programs for the Gifted and Talented. . .
Sandra Kaplan

OPEN-ENDED QUESTIONS

Quantity Questions

1. List as many _____ as you can think of.
2. How many different ways can you describe _____ ?

Reorganization Questions

1. What would happen if _____ were true?
2. Suppose _____ (happened), what would be the consequences?
3. What would happen if there were no _____ ?

Supposition Questions

1. Suppose you could have anything you wanted in working on this. What could you produce if this were true?
2. You can have all of the _____ in the world. How could you use it to _____ ?
3. You have been given the power to _____. How will you use it?

Viewpoint Questions

1. How would this look to a _____ ?
2. What would a _____ mean from the viewpoint of a _____ ?
3. How would _____ view this?

Involvement Questions

1. How would you feel if you were _____ ?
2. If you were _____ what would you (see, taste, smell, feel)?
3. You are a _____. Describe how it feels.

Forced Association Questions

1. How is _____ like _____ ?
2. Get ideas from _____ to improve _____.
3. I only know about _____. Explain _____ to me.

QUESTIONS TECHNIQUES
FOLLOW-THROUGH PROCEDURES GUIDE

CLARIFICATION - It is not clear what the student is talking about, is referring to, or has in mind. "What do you mean when you say _____?" or "Give us an example or two of what you are referring to."

ELABORATION OR SPECIFICITY - It is clear what the student is saying, but he/she has not provided enough details. "Tell us more about _____." or "What else do you know (notice, think about) _____?"

REFOCUS - The student's response shows he/she has done a different kind of thinking than what was called for or is not focused on the right content. "You are telling us _____." or "Tell us instead _____."

VERIFICATION - There is some question as to whether or not what the student is saying is true or can be substantiated. "How do you know that is so?" or "Show us where you see that." or "Where did you find that out?"

SUPPORT - The student has made a relationship, an assumption, an inference, a judgment, etc., and it is not clear on what he/she has based it. "Explain to us what information and thinking you used to arrive at your idea." or "On what do you base your idea?" or "Tell us the basis for your thinking that _____."

PARTICIPATION - Only a few students are giving all the responses or students are not building on one another's responses. "What did the others of you find out (notice, think about) _____?" or "Let's hear what the rest of you know (notice, think about) _____."

VARIETY - All the responses have been very much alike. "Who has different information (ideas) about this?" or "Those of you who think differently about this, give us your ideas."

NARROWER FOCUS OR CHANGE OF FOCUS - Students have finished giving responses on one focus and it is time for them to focus on details or on something different. "Let's change focus now and think about _____." or "You have been talking about _____. Now focus on _____."

CONFIRMATION - It is not clear whether or not students have clearly or completely understood a statement, question, or direction. "Tell me in your own words what you are being asked to do." or "What is your understanding of what you should do?" or "Say what you heard me say in your own words, so I can check to see if you understood what I said."

Taken from **Institute for Curriculum and Instruction, 1982**

KNOWLEDGE

Description (To know–to recall)	Question/ Statement verbs		Sample Questions/ Activities
-remembering previous learned material	arrange	recall	-label the parts of a plant
		recite	
	cite	repeat	
	choose	reset	
-lowest level of learning	check	reproduce	-show the numerals one to ten in Roman numeral form
-listing learned information	define	say	
	describe	select	
		show	
-bringing to mind appropriate material	find	sort	-group together all the four syllable words
		spell	
	group	state	
-recalling information	hold	tell	-list the freedoms included in the Bill of Rights
		tally	
-bringing to mind stored knowledge	identify	touch	
		transfer	
	label		
-reciting learned information	list	underline	-identify the food group each of these foods belong to
	locate		
		write	
-remembering terms methods facts concepts specific items of information	match		
	name		-write definitions to the following words
	offers		
	omit		
	outline		-locate different examples of capitalization in the following story
	pick		
	point to		

COMPREHENSION

Description (explaining/understanding)	Question/ Statement verbs		Sample Questions/ Activities
-ability to grasp the meaning of material	comprehend	extrapolate	
-interpreting material	alter	advance	
-seeing relationships among things	convert	calculate	-explain why we have bus safety rules
-projecting effects of ideas	change	contemplate	-outline the steps necessary for an idea to become a law
-communicating an idea	construe	offer	
-lowest level of understanding	expand	project	-restate the reasons for weather changes
-explaining ideas	moderate	propose	
-summarizing material	qualify	scheme	
-understanding facts and principles	transform	submit	
-estimating future trends	translate		
-predicting consequences	vary		
-interpreting charts and graphs	interpret		
	account for		
	annotate		-interpret the chart showing the rate of inflation over the past ten years
	construe		
	define		
	demonstrate		-summarize the story
	explain		
	expound		-What were the underlying factors that contributed to the Revolutionary War?

APPLICATION

Description (using ideas)	Question/ Statement verbs		Sample Questions/ Activities
-applying concepts and principles to new situations	apply	relate	-put this information in graph form
	adopt		
	avail	solve	
	capitalize		
	consume		
-applying laws and theories to practical situations	construct	try	
	classify	take up	
	collect		
		use	
-solving of mathematical problems	devote	utilize	-organize the forms of pollution from most damaging to least damaging
	exercise	wield	
-constructing charts and graphs	exert		
	employ		-collect examples of private citizens influencing government
	exploit		
-demonstrates correct usage of a method or procedure	handle		
	make use of		-You are in charge of a 1970's Hall of Fame. Who would be in it? Why?
-applying rules, methods concepts, principles, laws, theories	mobilize		
	manipulate		-How does the principle of estimation help you outside of school?
	organize		
	operate		
-requires higher level of understanding than comprehension			-Capitalize on the school spirit. Plan posters, acts, plays, etc. that will promote school spirit.
	ply		
	put in action		
	put to use		
-making use of the known	profit by		-Sketch a picture that relates your feelings about recess.

ANALYSIS

Description (breaking down)	Question/ Statement verbs		Sample Questions/ Activities
-breaking material down	audit	take apart	-simplify the ballet to its basic moves
	breakdown	test for	
	check	uncover	
-understanding the organizational structure	canvass		-inspect a house for poor workmanship
	differentiate		
	dissect		
	divide		
-analysis of relationships between parts	deduce		-search through a painting to uncover as many principles of art as possible
	diagram		
	examine		
-recognition of organizational principals involved	include		-Read a nonfiction book. Divide the book into its parts. Tell why the parts were placed in the order they were.
	inspect		
	infer		
-requires understanding of both the content and structural form	reason		
	separate		-Look into the forces that might cause pressure for our legislators
	simplify		
	syllogize		
	section		
-analyze the elements	scrutinize		
	survey		
	search		-Inspect two presidential addresses. Compare and contrast them.
	study		
	screen		
	sift		
	subdivide		
			-Think of a problem situation facing our country. Identify several real problems that make up this situation.

SYNTHESIS

Description (forming new whole)	Question/ Statement verbs		Sample Questions/ Activities
-putting parts together in a new whole	blend build	recorder reorganize rearrange	-create a new song for the melody of "Mary had a Little Lamb"
-formulating new patterns or structures	create combine compile compose construct	reconstruct revise structure	-combine elements of drama, music and dance into a stage presentation
-abstract relationsips	cause constitute conceive	yield	-develop a plan for your school to save money
-communicating an idea in a unique way	develop design		-create a model of a new game that combines thinking, memory, and chance equally
-proposing a set of operations	effect evolve		-reorganize a chapter/unit from your textbook the way you think it should be
-creating new or original things	form formulate		
-take things - pattern them in a new way	make mature make up modify		-find an unusual way to communicate the story of a book you have read
	originate		-formulate positive changes that would improve learning in your classroom
	produce plan		

EVALUATION

Description (judging)	Question/ Statement verbs		Sample Questions/ Activities
-ability to judge the value of material	appraise assay accept assess adjudge	rule on rate rank reject referee	-decide which person would best fill a position
-use of definite criteria for judgments	arbitrate award classify censure	settle summarize support	-rank the principles of "good sportsmanship" in order of importance to you
-value judgments based on clearly defined criteria	criticize conclude	umpire	-decide which proposed plan is the best based on established criteria
-highest learning outcomes	describe decide discriminate decree determine	weigh	-read two different accounts of an incident. Decide which story is most logical in its portrayal
-use of cognitive and affective thinking together	evaluate explain		-judge the posters or murals your class has just constructed
	grade interpret		-justify the actions of your favorite historical figure
	justify judge		-determine the necessary criteria for a good resource
	prioritize		-summarize the involvements you have had with your class this year

PROJECT EVALUATION 1989-90

EVALUATION OF THE INSTRUCTIONAL OPTIONS PROGRAM

The evaluation of the Instructional Options Program is on-going. Since the project's conception, teachers have been giving feedback both informally and in writing to determine if this is an effective model for the Bexley City Schools. The project facilitator is involved in class observations to collect data to evaluate if students are further developing their critical and creative thinking skills. Teachers also do written evaluations of specific lessons to determine their effectiveness.

At the end of the 1989-90 school year, the entire group participated in an evaluation to determine if this project had met the objectives. Teachers rated both their personal growth and student growth in three categories: knowledge, attitudes and behaviors. The evaluation form and the results of this evaluation are included.

Summary

1. The project did cause teachers to be very attentive to the instructional decisions they were making. They began to see their role as a facilitator of learning with much more direction given to students being actively involved in the learning and evaluative process. Teachers did change how they developed lessons, what they included and why and how they evaluated the effectiveness of the learning.

2. Students did learn to think and behave differently. They became more willing to explore possibilities, better able to identify their thinking, and became able to tell you what they did and why they did it and how it contributed to their learning.

3. This staff development program design was successful. The design provided focused instruction at the beginning and at various intervals throughout the year. In-classroom support was provided on a pre-scheduled arrangement. It was a peer-cooperation program focused on attending to what worked best for students. Strategies could be tried out by teachers with their students in real classroom situations. Modifications could be made over time both in what the teacher did and in how well it was done.

Three evaluation documents with a summary of the teacher comments follow:

I. **A Teacher Self-Evaluation**

A. **A 14-item self-evaluation.** Each item is an objective of the project. Teachers rated their perception of their own growth in knowledge. The **bold-faced** items indicate how many of the project faculty selected each response (Pg. 155).

B. **A six-item open-ended questionnaire.** Teachers commented about changes in their own attitudes and behaviors as a result of the project (Pg. 156-158).

II. **Evaluation of the Taylor Model**

Teachers were asked four questions. A summary of their responses is included (Pg. 159).

III. **Evaluation of Student Growth**

Questions posed to staff addressed student changes in knowledge, attitudes, and behaviors. Their answers are summarized on pages 160-162.

PARTICIPANTS IN THE INSTRUCTIONAL OPTIONS PROGRAM SELF-EVALUATION 1989-90
Please evaluate your growth from the IOP project.
(Be as specific as possible, citing examples when applicable.)

KNOWLEDGE - **Evaluate your knowledge growth by rating yourself on how well you accomplished the course objectives.**

3 = Excellent 2 = Satisfactory 1 = Needs Improvement
(Numbers for each category indicate results of the evaluation for the 1989-90 school year)

COURSE OBJECTIVES: **The Learner will**

____ 1. Identify and define the six talent areas of Taylor's Model.
Excellent = 6 Satisfactory = 7 Needs Improvement = 0

____ 2. Discuss the major assumptions underlying Taylor's Model.
Excellent = 3 Satisfactory = 7 Needs Improvement = 3

____ 3. Anaylze the roles of the student and of the teacher in each Talent area.
Excellent = 3 Satisfactory = 7 Needs Improvement = 3

____ 4. Outline the teaching process for each talent area
Excellent = 4 Satisfactory = 6 Needs Improvement = 3

____ 5. Identify characteristics of students possessing talent in each of the talent areas.
Excellent = 4 Satisfactory = 6 Needs Improvement = 3

____ 6. Design lesson plans for each of the talent areas.
Excellent = 6 Satisfactory = 6 Needs Improvement = 1

____ 7. Implement these and other related lesson plans into their instructional strategies.
Excellent = 5 Satisfactory = 3 Needs Improvement = 5

____ 8. Identify the six levels of Bloom's Taxonomy
Excellent = 5 Satisfactory = 7 Needs Improvement = 1

____ 9. Match student behaviors/activities with the various levels of Bloom's Taxonomy.
Excellent = 2 Satisfactory = 7 Needs Improvement = 4

____ 10. Design questions/activities for each level of Bloom.
Excellent = 4 Satisfactory = 5 Needs Improvement = 4

____ 11. Implement these questions/activities into their instructional strategies.
Excellent = 2 Satisfactory = 6 Needs Improvement = 5

____ 12. Design documentation to evaluate student progress with these optional instructional strategies.
Excellent = 1 Satisfactory = 2 Needs Improvement = 10

____ 13. Evaluate effectiveness of the Taylor Model.
Excellent = 2 Satisfactory = 6 Needs Improvement = 5

____ 14. Demonstrate an understanding of the teacher behaviors that enable student thinking.
Excellent = 1 Satisfactory = 7 Needs Improvement = 5

ATTITUDES

Do you understand your role and the student's role in the Taylor Model?

— —

Most of the participants feel they understand both the role of the teacher and the student. They see themselves as facilitators or guides who help to outline the processes to expand critical thinking in all the curriculum areas. They expressed comfort with this role and feel it has caused them to reevaluate their planning and teaching. A few said they understand the role but had not really put it into practice.

Many see the student's role as that of generating responses, ideas, and creating products--active participation. Observations were made in regard to students feeling comfortable and excited about this newly defined role.

Do you encourage the use of higher level thinking skills? (Are they important to you and do your students recognize that?)

— —

All of the participants stated that they are trying to encourage the use of higher level thinking skills. Some stated they have always seen the need, but now have a way to incorporate these levels into their units and believe they have much improved in this area from before. Many see students responding more effectively to higher level questions, even though it was difficult for some students at first. The group agrees this model is giving students life-related skills and helping to encourage life-long learners. Many have observed students recognizing the need to justify and support answers and ideas more than in the past.

Other . . .

BEHAVIORS

Do you model higher level thinking? (Taylor's Model, Bloom)

— —

The participants are all trying to model higher level thinking with their students. They are feeling much more confident in this area. They are now consciously aware of higher level thinking skills when planning and are using labels and processes. Many have said the model has helped to expand their units. Some are using Taylor and Bloom with less effort and more consistency, although some feel they have room for growth. They show students how to plan, how to take an idea one step further, and talk about the process more.

Are your lessons more effective since using Taylor/Bloom? (Are they broader, more interesting, more motivating, etc.?)

— —

Most of the participants feel very definitely that their lessons have become more effective since using Taylor/Bloom. Many stated that they have expanded their units to include many new and varied activities and that their lessons are more diverse. The model has helped many of them to look at their teaching in different ways and to stretch instructional strategies to incorporate higher level thinking into the curriculum. Some have concentrated on "wait time," some questioning techniques, some on brainstorming, some on active participation of students, and others on precision of language. Many noted changes in attitudes of students and observe higher rates of motivation and interest, which they feel are a result of the changes in their lessons.

Do you frequently encourage kids to seek alternative answers?

— —

Many people have become aware of many and varied alternatives to problems and have encouraged this attitude in students. Some said they ask questions with more than one answer more often than before and encourage diverse and original answers.

Observations made by individuals are as follows:

" . . . my students have gained respect for others and their opinions, they have learned to disagree and support their answers more effectively . . . "

" . . . I now tend to listen to many answers rather than stopping after the answer I had thought of is given . . . "

" . . . children are better at working out their own problems because I don't automatically give solutions . . . "

" . . . students are listening more carefully, ready to piggyback . . . "

" . . . I'm encouraging piggybacking, focusing ideas, and expanding thoughts . . ."

Have you tried to help parents understand the objective of your stragtegies to enhance thinking?

Most of the participants have not done much communication in this area although most of them have definite plans to do this next year. Some did correspond through newsletters to parents this year and found that to be quite effective. Of those who have received feedback from parents, it is positive, and parents are interested in the project continuing. Almost everyone plans to discuss the Taylor Model and higher level thinking during Curriculum Night next year.

Other

Many participants expressed that a valuable part of this project has been the structure which allows for planning with a colleague and receiving feedback from her on an on-going basis. Teachers are more aware of processes involved in their teaching and are reaching areas of higher level thinking more consistently than in the past. The guidance and feedback of an in-house staff member as well as that of their peers, over a full school year, has given them the opportunity to teach, revise, review, reflect and take the time necessary to fully integrate the new strategies into their teaching.

EVALUATION OF TAYLOR'S MODEL 1989-90

Please note ideas regarding Taylor's Talent Areas Model.
Please be as specific as possible.

Do you feel the talent areas are important?

Are the areas worthy of classroom time?

Are they useful to kids?

Do they fit easily into various curriculum areas?

— —

The participants feel the talent areas are important because they are very life-related. Teachers have identified this model as an effective way to expand thinking and provide students with useful strategies for problem solving. Some stated that the model easily integrates with all areas of the curriculum, but others found particular areas difficult to integrate. Most agree it fits with reading and writing, but there is disagreement in regard to science and social studies. A few primary teachers feel the model fits well with social studies, science and literature and that it helped to make the units more exciting. A few others at the upper grade levels find difficulty in implementing the model in science and social studies. Some said it fits an integrated curriculum perfectly and that the possibilities are endless.

One comment noted the model gives a teacher a method to design lessons with problems that students might encounter in the real world, which this person feels makes it worthy. But he/she feels when a discipline has a unique method of inquiry that using Taylor may not be productive. Another concern expressed is that this model lacks a component which provides criteria for the selection of content or at least a process for the assessment of the quality of the content.

Evaluate Student Growth in these areas.
Please cite specific examples when possible.

KNOWLEDGE

Can the students identify talent areas?

Do they understand the processes involved?

Do they understand labels used?

— —

Many of the participants feel the students can generally identify the talent areas and use labels appropriately. Most everyone reported some progress in this area over the year. One said, that at first the students didn't understand the talent areas and would think each time a related word was mentioned they were doing the talent area. Progress is noted, with students now checking the steps involved in the particular talent area to assure it is being followed. Some participants have concern that students can identify labels but are uncertain if they fully understand the processes. They are anxious to see if a carry over to other classes or to next year can be observed.

Some people have observed that their brighter students seem to do better with the talent areas, especially in labeling, than other students, but feel it is beneficial to students of all ability levels.

A few people have not really concentrated on the labels and feel the process and content of an activity are the most important, but have found writing units using Taylor's model has helped to conceptualize the subject matter in a new way. The model gives teachers a method to help students look at the subject matter in new ways which are more meaningful and more productive to the students.

ATTITUDES

Do the students regard higher level thinking as something that is encouraged and valued?

Are they more persistent in their thinking when a solution is not apparent?

Do they consider consequences more?

Many teachers have observed a change in attitudes about the importance of justifying opinions, sound reasoning, and looking before leaping. They feel higher level thinking is valued and students are enjoying the challenge. Some see more cooperation that during group activities and feel students can plan and make decisions more effectively and more independently.

BEHAVIORS

Has the student's thinking expanded?

Do they know if it has?

Are they able to follow processes and use labels?

Do they show more flexibility in their thinking?

Are they better problem solvers?

Almost everyone sees progress in student behaviors. They are finding children to be less satisfied with simply accepting the first idea and more willing to explore possibilities. Students seem to be more flexible in their thinking and have surpassed some teachers' expectations.

A few participants are seeing great differences in the use of higher level thinking skills when they compare with past classes. They see students trying new approaches and being more aware of the logical steps that are a part of higher level thinking.

Some primary teachers have noted more independence in their children in that they are more able to problem solve on their own. When students are working in small groups, teachers are observing more cooperation, more collaborating within the group, and more willingness to stay with the task. One teacher notes that he/she is not sure how much of the progress can be attributed to Taylor, to developmental, or to the fact that his/her expectations have increased, but definite changes have been observed. Students are thinking ahead to possible problems, being very specific in their thinking and descriptions, and seeing many alternative ideas.